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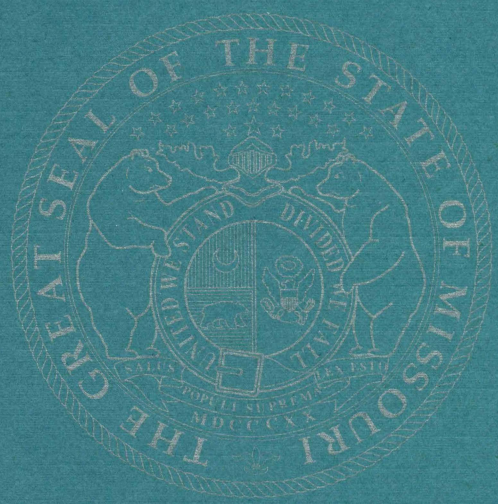
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Missouri State Employees' Retirement System

Component Unit Financial Report
Fiscal Year Ended June 30, 1990



Missouri State Employees' Retirement System

**Component Unit Financial Report
Fiscal Year Ended June 30, 1990**

**M. Steve Yoakum,
Executive Director**

**Gary Irwin,
Chief Accountant**

**Missouri State Employees' Retirement System
906 Leslie Boulevard
P.O. Box 209
Jefferson City, Missouri 65102
(314) 751-2342**

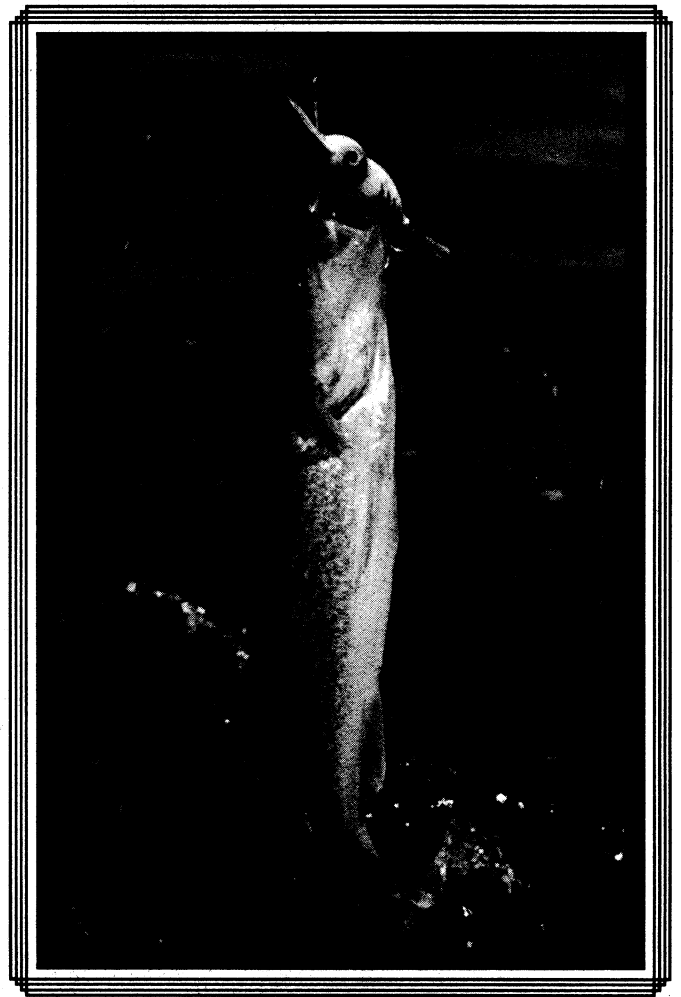


Photo Courtesy of the Missouri Department of Conservation

Introductory Section

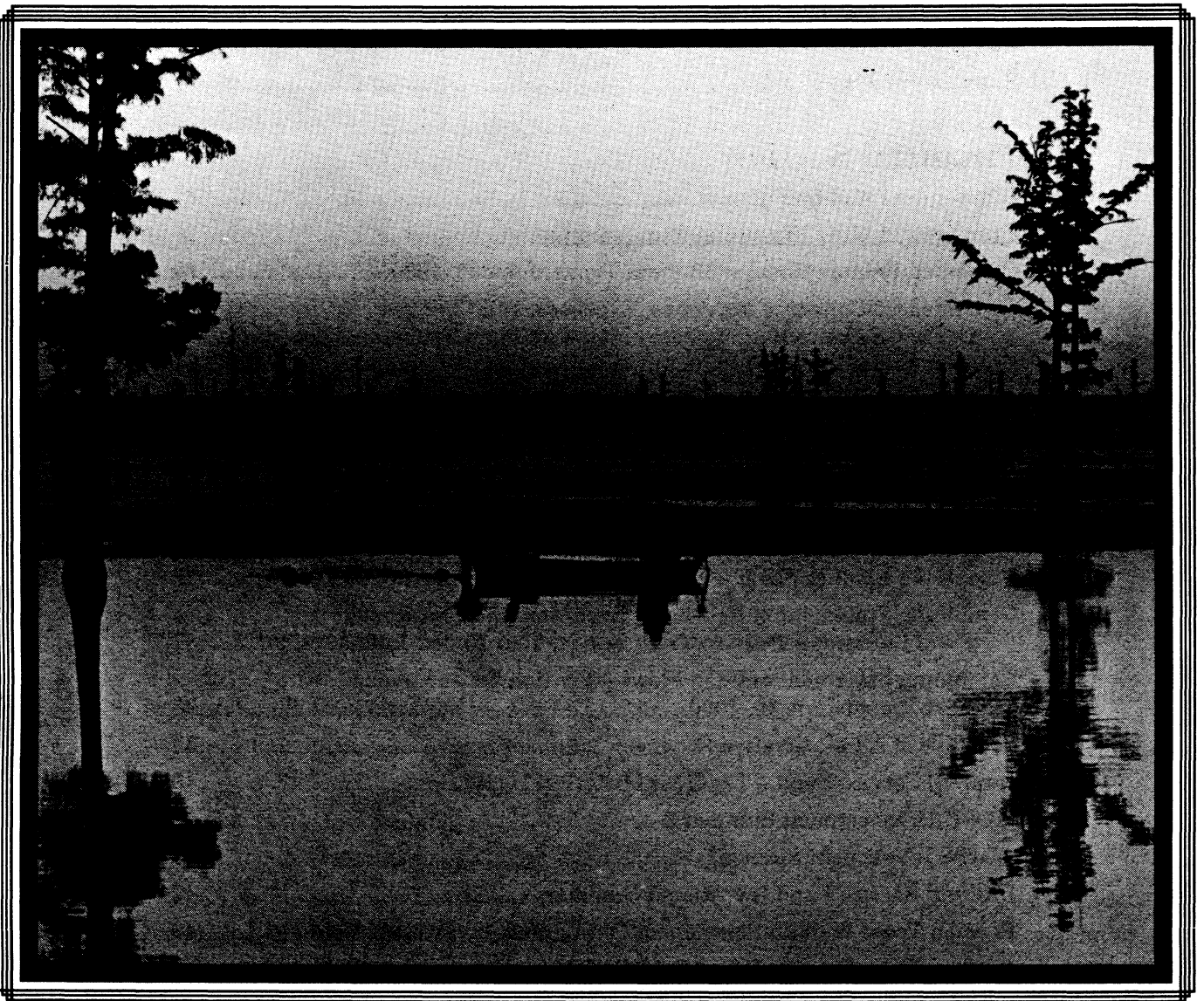


Photo Courtesy of the Missouri Department of Conservation

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MISSOURI STATE EMPLOYEES' RETIREMENT SYSTEM

906 LESLIE BOULEVARD
JEFFERSON CITY, MISSOURI 65101

Telephone: 314-751-2342

MAILING ADDRESS
P.O. Box 209
Jefferson City, Missouri 65102

M. Steve Yoakum
Executive Director

Rosemary Eppenauer
Assistant Executive Director

Ron Meyer
Assistant Executive Director

Letter of Transmittal

October 14, 1990

The Board of Trustees
Missouri State Employees' Retirement System
Jefferson City, MO 65101

It is with great pleasure that I submit the annual report of the Missouri State Employees' Retirement System (MOSERS) for fiscal year ended June 30, 1990. This comprehensive report is designed to comply with the provisions of Sections 104.480 and 105.661 of the Revised Statutes of Missouri (RSMo) as amended and includes the Retirement System's financial statements, summaries of the actuarial reports, and statistical tables. We trust that you and the other members of the System will find this annual report helpful in understanding your Retirement System—a system which continues to maintain a strong and positive financial future.

I am particularly pleased to report that the Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MOSERS for its Component Unit Financial Report for the fiscal year ended June 30, 1989. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Component Unit Financial Report whose contents conform to program standards. Such CUFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

MOSERS has become only the 8th statewide public employee retirement system currently holding this prestigious award. The Certificate is displayed on page 9 of this report.

Revenues

Contributions from the State of Missouri and investment income from the assets of the System provide the reserves needed to finance retirement, life insurance, health and disability benefits. Pursuant to Section 104.436, RSMo, as amended, the MOSERS retirement contribution rate for FY 1990 remained at 9.9% of the membership payroll. The ALJRS contribution rate increased to 30.17% of membership payroll as actuarially determined. Revenues for the retirement plans for fiscal year 1990 totaled \$268,567,129 and the insurance plans' revenues totaled \$91,922,899.

Expenses

MOSERS was established by state law in September 1957 to provide retirement benefits to qualified members and their beneficiaries. Over the years, life insurance, health and disability benefits were added. The cost of providing these benefits includes recurring benefit payments as designated by the plans, refunds of contributions to members, and the cost of administering the System. Expenses of the retirement plans amounted to \$69,050,870, while expenses of the insurance plans for fiscal year 1990 totaled \$82,084,712.

Investments

In accordance with the Revised Statutes of Missouri (RSMo), the Board of Trustees has established a policy which requires that the funds be invested in conformity with the "prudent person rule." The "prudent person rule" permits the fund to establish an investment policy based upon certain investment criteria and allows for delegation of investment authority to professional investment advisors. The statement of investment policy outlines the responsibility for the investment of the fund and the degree of risk that is deemed appropriate for the fund. Investment advisors are to execute the investment policy in accordance with the statutory authority, the Board policy, and their respective guidelines, but are to use full discretion within the policy and guidelines. The investment advisors retained by the Board are listed on page 14 of this report with a summary of investment activity included on pages 41 to 44.

Funding

The MOSERS funding objective is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll. The greater the level of funding, the larger the ratio of assets accumulated and the greater the investment potential. As evidenced in this report, MOSERS continues in excellent financial condition.

Professional Services

Professional consultants are appointed by the Board of Trustees to perform professional services essential to the effective and efficient operation of MOSERS. The independent auditors' report and the actuarial certification are included in this report. The consultants appointed by the Board are listed on page 14 of this report.

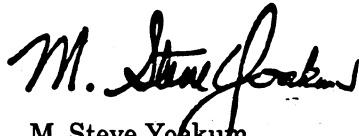
Acknowledgments

This report is a product of the combined effort of the MOSERS staff under the leadership of the Board of Trustees. It is intended to provide complete and reliable information as a basis for making management decisions, as a means for determining compliance with legal provisions, and as a means for evaluating responsible stewardship of the funds of the System.

This report is provided to the Governor, the Auditor, the Joint Committee on Public Employee Retirement of the General Assembly, and to all the state agencies. These agencies form the link between MOSERS and its members and their cooperation contributes significantly to the success of MOSERS. We hope the agencies and their employees find this report informative and useful.

On behalf of the Board of Trustees, I would like to take this opportunity to express my gratitude to the staff, to the advisors, and to the people who have worked so diligently to assure the successful operation of the System.

Respectfully submitted,



M. Steve Yoakum,
Executive Director

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Missouri State Employees'
Retirement System

For its Component Unit
Financial Report
for the Fiscal Year Ended
June 30, 1989

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose component unit financial reports (CUFR's) achieve the highest standards in government accounting and financial reporting.



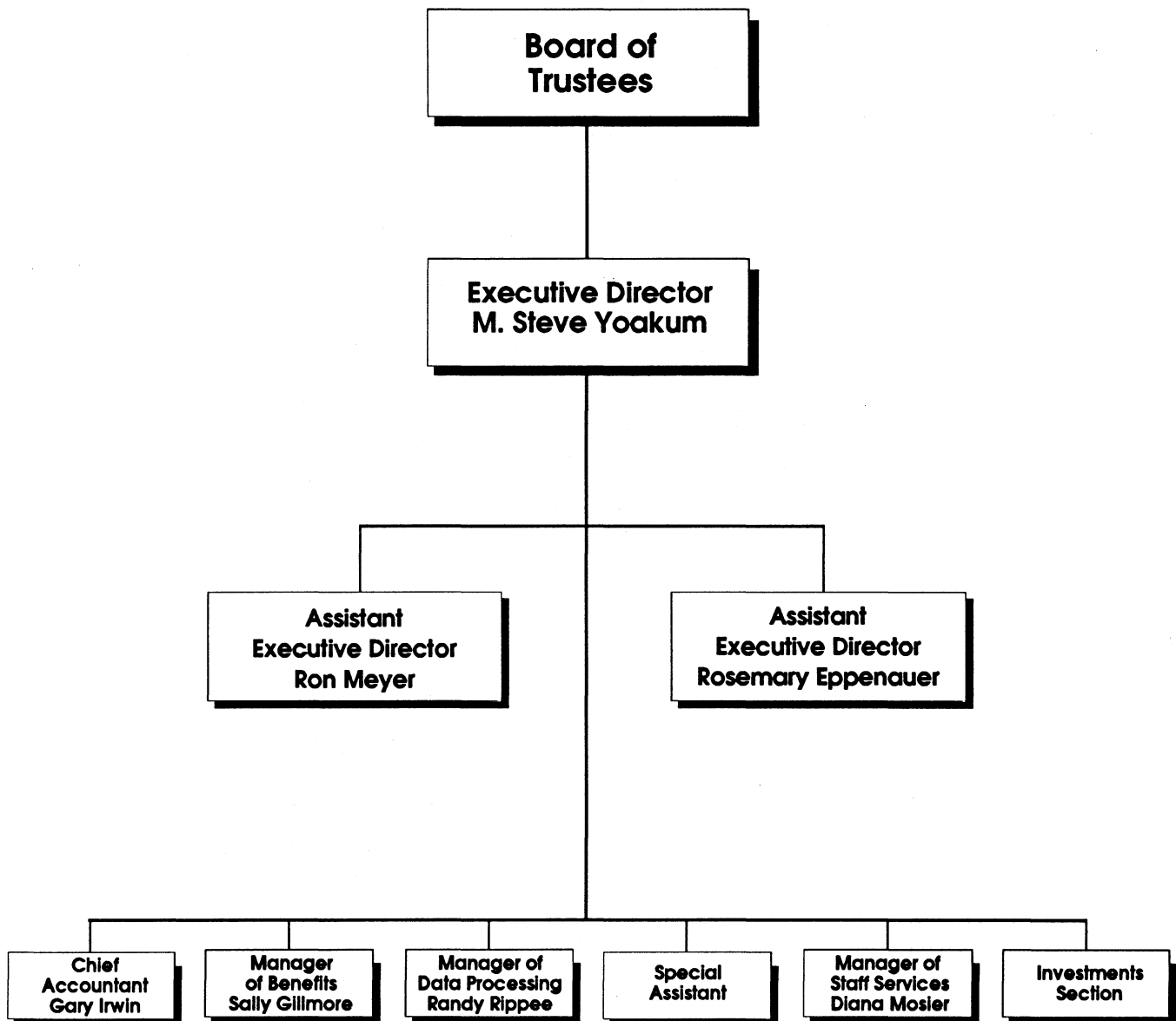
Gary R. Worsham

President

Jeffrey L. Esler

Executive Director

Administrative Organization



Organization of MOSERS

The Executive Director and the Assistant Executive Directors are responsible for the operation of the MOSERS office. The Executive Director is accountable to the Board and works with the Board as well as with the actuaries, the benefit consultants, the investment consultant and the investment managers. The MOSERS office has 52 employees and is divided into six sections.

Accounting—This section is responsible for all financial records of the programs administered by MOSERS, including preparation of financial, statistical, and investment reports. Accounting performs the purchasing function for MOSERS, as well as interfaces with the investment consultant, investment managers, Office of Administration Accounting, various payroll/personnel departments, and accounting offices of Health Maintenance Organizations, life insurance companies, actuaries, banks, and the IRS. The Chief Accountant is responsible for the accounting section.

Benefits—This section is divided into three units: Benefit Specialists, Membership Records, and the Insurance Team. Benefit Specialists are responsible for the administration of all aspects of the benefit program as it relates to members of the System, including conducting educational meetings throughout the state. Membership Records is responsible for establishing and maintaining all records of MOSERS' membership, including files, preparation, and verification of data entered into the computerized data base. The Insurance Team verifies any out-of-balances pertaining to monies expected for all insurance plans. They also generate and record all direct billing invoices. The Manager of Benefits is responsible for the benefits section.

Data Processing—Using an IBM AS 400 computer, this section provides all computer and technical design support for MOSERS' programs. Data Processing is responsible for establishing and updating computer programs to implement plan changes. The Manager of Data Processing is responsible for this section.

Special Services—Special Services analyzes legislation to determine the impact on MOSERS, initiates activities required to implement legislation, tests data processing programs, develops technical manuals, maintains an on-going communication program, and prepares and reviews contract and bid proposals. The Special Assistant to the Executive Director is responsible for this section.

Staff Services—This section is responsible for providing clerical support for all Missouri State Employees' Retirement System personnel. The Manager of Staff Services also acts as secretary to the Board of Trustees and coordinates all the Board activities and serves as MOSERS' Personnel Officer. The Manager of Staff Services is responsible for the activities of this section.

Investments—The Investment Section is responsible for the oversight of the investment program of MOSERS. This section answers directly to the Executive Director.

Although each section performs different job responsibilities, all the employees of the Retirement System work together to better serve our members.

Board of Trustees

Gail Chatfield

Chairman
State Representative
House of Representatives Member
Term expires 12/31/90
Benefits Committee
Legislative Committee
Medical Care Plan Committee
Personnel Committee

Wendell Bailey

State Treasurer
Ex-Officio Member
Budget / Audit Committee
Investment Committee

Duane Benton

Director of Revenue
Governor Appointed Member
Term expires 1/93
Budget / Audit Committee
*Investment Committee**

Jane Bierdeman-Fike

Vice Chairperson
Director of Social Services
Fulton State Hospital
Elected Active Member
Term expires 12/31/90
*Benefits Committee**

*Medical Care Plan Committee**

Joseph Dietrich

Elected Retired Member
Term expires 12/31/90
Benefits Committee
*Personnel Committee**

Chris Graham

State Representative
House of Representatives Member
Term expires 12/31/90
Budget / Audit Committee
*Legislative Committee**

Medical Care Plan Committee

Ronald Larkin

Director of Operations
State Courts Administrators Ofc.
Elected Active Member
Term expires 12/31/90
*Budget / Audit Committee**

Investment Committee

Legislative Committee

Medical Care Plan Committee

Personnel Committee

Thomas McCarthy

Senator
Senate Member
Term expires 12/31/90
Budget / Audit Committee
Investment Committee
Legislative Committee
Medical Care Plan Committee

James Moody

Commissioner of Administration
Ex-Officio Member
Budget / Audit Committee
Investment Committee

Richard Rice

Director of Department of
Public Safety
Governor Appointed Member
Term expires 1/93
Benefits Committee
Personnel Committee

John Scott

Senator
Senate Member
Term expires 12/31/90
Benefits Committee
Investment Committee
Legislative Committee

* Denotes committee chairman



MISSOURI STATE EMPLOYEES' RETIREMENT SYSTEM

906 LESLIE BOULEVARD
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P.O. Box 209
Jefferson City, Missouri 65102

M. Steve Yoakum
Executive Director

Rosemary Eppenauer
Assistant Executive Director

Ron Meyer
Assistant Executive Director

Letter from the Chairman

October 1, 1990

Dear Members:

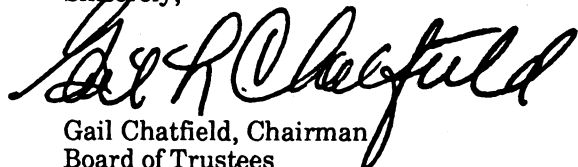
On behalf of the Board of Trustees, I am pleased to present the Missouri State Employees' Retirement System (MOSERS) Annual Report for the fiscal year ended June 30, 1990.

During the past year, the capital appreciation and income earned on the System's investment portfolio again exceeded the actuarially assumed return, thus enhancing the financial stability of the fund. Throughout the decade of the 1980's, the prudent investment policies of the Board enabled the system to take full advantage of the unusual gains available in the financial markets. Although it is uncertain what type of investment environment the 1990's will bring, the Board, with the help of investment staff and advisors, will maintain its vigilance over the policies and performance of the investment program to ensure the continued good financial health of our pension fund and the security of the benefits it provides to the membership.

As I am sure you are aware, the increasing rise in costs of providing health care continue to adversely impact medical insurance programs throughout the nation. The effect on the Missouri State Medical Care Plan has been no different. In response to this fiscal crisis, the Board implemented cost containment measures during the past two years in an attempt to reduce the impact of spiraling medical costs. The success of these programs is evidenced by the improved financial reserve position of the plan which has allowed the Board to maintain the current premium structure without increase throughout calendar year 1991. However, we cannot rest in the battle against inflationary medical costs and will continue to develop and study innovative strategies in an attempt to further manage costs and provide protection to our members and their families.

In closing, I must mention that performing the duties of a member of the Board of Trustees became more difficult with the passing of our colleague Senator Richard Webster earlier this year. Senator Webster long served the members of this System as a staunch advocate of progressive employee benefits both in the Missouri General Assembly as well as in the MOSERS' boardroom. His expertise and leadership will be greatly missed, but in following the example he left us, we, as the Board of Trustees, will continue to strive to improve the service and benefits provided to you, the members, now and in the future.

Sincerely,


Gail Chatfield, Chairman
Board of Trustees

Consulting Services

Actuary

Gabriel, Roeder & Smith
Gary W. Findlay
Detroit, Michigan

Auditors

KPMG Peat Marwick
Certified Public Accountants
Rick Corcoran
Philip Keipp
St. Louis, Missouri

Legal Counsel

Thompson & Mitchell
Attorneys at Law
Allen D. Allred
St. Louis, Missouri

Equity Investment Advisors

**Alliance Capital
Management Corp.**
Thomas M. Perkins
San Francisco, California

CFW Management Company

J. Owen McPherson
Kansas City, Missouri

Delaware Investment Advisors

Richard Unruh
Philadelphia, Pennsylvania

Shields Asset Management

Jay Carr
White Plains, New York

Twentieth Century

Stephen Barney
Kansas City, Missouri

Fixed Income Investment Advisors

Boatmen's Trust Company
Robert Franklin, Sr.
St. Louis, Missouri

Loomis, Sayles & Co.

John de Beer
Boston, Massachusetts

Mississippi Valley Advisors, Inc.

Fred H. Edwards
Craig Campbell
St. Louis, Missouri

United Missouri Investment Counsel Service

David B. Anderson
Lou Bradshaw
Kansas City, Missouri

Real Estate

Investment Advisor

Eastdil Realty, Inc.
Richard Miles
San Francisco, California

Venture Capital

Investment Advisor

Brinson Partners
Bart Holaday
T. Bondurant French
Chicago, Illinois

Investment Management Consultant

Callan Associates, Inc.
Dennis Grether
Chicago, Illinois

Medical Care Plan Consultant

**Towers, Perrin, Forster
& Crosby**
Stephen C. Jackstadt
St. Louis, Missouri

Medical Care Plan Claims Administrator

DBL Services, Inc.
Anne L. Landau
St. Louis, Missouri

Summary of Plan Provisions

The Missouri State Employees' Retirement System (MOSERS), established September 1, 1957, is governed by the statutes of the State of Missouri.

Purpose

MOSERS provides retirement, survivor, disability, life insurance, and medical benefits to its members in the most efficient and economical manner possible.

MOSERS administers retirement benefits for most State employees, including members of the Water Patrol, members of the General Assembly, and Elected State Officials. MOSERS is a non-profit entity which has the responsibility of administering the law in accordance with the expressed intent of the General Assembly and bears a fiduciary obligation to the State of Missouri, the taxpayers, and the State employees who are its beneficiaries.

This is a summary of the provisions of the Revised Statutes of Missouri (RSMo), as amended, that governs the programs which MOSERS administers. It does not amend or overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply.

Administration

The statutes provide that the administration of MOSERS be vested in an 11-member Board of Trustees. The Board is comprised of:

- ✓ Two members of the Senate, appointed by the President Pro Tem of the Senate
- ✓ Two members of the House, appointed by the Speaker of the House
- ✓ Two members appointed by the Governor
- ✓ Three members of the System, two actives and one retiree, elected by the members
- ✓ The State Treasurer
- ✓ The Commissioner of Administration

The management of MOSERS is the responsibility of the Executive Director who is appointed by the Board and serves at its pleasure.

The Executive Director acts as advisor to the Board on all matters pertaining to the System and, with the approval of the Board, contracts for professional services and employs the remaining staff needed to operate the System.

Retirement

Eligibility

Members who work in a position normally requiring at least 1,000 hours of work a year and who are not simultaneously accumulating Creditable Service under another retirement program supported by State contributions (other than social security) are eligible and required to participate in the Retirement Plan.

Unreduced Retirement Benefits

A member may retire with full benefits when he/she attains:

<u>Age</u>	<u>Service</u>
55	30 years
60	15 years
65	10 years
65	4 years*

*Must be retiring directly from active employment.

A member of the General Assembly may retire with full benefits when he/she attains:

<u>Age</u>	<u>Service</u>
55	5 biennial assemblies
60	3 biennial assemblies

Uniformed members of the Water Patrol may retire with full benefits when he/she attains:

<u>Age</u>	<u>Service</u>
55	10 years
55	4 years*

*Must be retiring directly from active employment.

Early Retirement

(Actuarially reduced)

Members of MOSERS may retire early with an actuarially reduced benefit at age 55 with 10 years of service. General Assembly members may retire early at age 55 with three biennial assemblies. Elected State Officials may retire early at age 55 with 10 years of service.

There are no early retirement provisions for uniformed members of the Water Patrol.

Benefit Formula

The benefit formula for members of MOSERS is 1-1/2 percent of the average of the highest 36 consecutive months of salary times the years of Creditable Service.

General Assembly members receive:

- ☐ \$80 x number of biennial assemblies (3 or 4 biennial assemblies) or,
- ☐ \$105 x number of biennial assemblies (5 to 9 biennial assemblies) or,
- ☐ \$130 x number of biennial assemblies (10 or more).

Elected State Officials with less than 12 years of service as an

elected official receive 1-1/2 percent of the average of their highest three consecutive calendar years of salary times years of Creditable Service. Those officials with 12 or more years of service receive 50 percent of the statutory salary paid to the current elected official in the highest position which the retiree previously held.

Uniformed members of the Water Patrol receive 1-1/2 percent of the average of their highest 36 consecutive months of salary times years of creditable service. That amount is then increased by 33-1/3 percent to determine their normal retirement annuity.

Creditable Service

Creditable Service is a combination of the Creditable Prior Service a member has accrued before becoming a member of MOSERS and the years and full months of Membership Service the member has as a member of MOSERS.

Creditable Service is used in determining the amount of the member's benefit under the System.

Vesting is based on service which is recognized in determining the member's eligibility for benefits under the System.

<u>Service</u>	<u>% Vested</u>
5 years	50%
6 years	60%
7 years	70%
8 years	80%
9 years	90%
10 years	100%

Optional Forms of Payment

Retirement benefits are paid according to the election made by the member just prior to retirement. Members may choose a life income annuity and receive a full benefit with no survivor option or the member may choose a 50-percent or 100-percent joint and survivor option. If one of the latter are chosen, the benefit is actuarially reduced, and upon the members' death the survivor receives either 50 percent or 100 percent of the member's reduced benefit.

Members of the Department of Conservation, General Assembly, and Elected Officials automatically receive a 50-percent survivor benefit for service in those positions without an actuarial reduction in their benefit.

Members of MOSERS may also choose lifetime income with either 60 or 120 guaranteed monthly payments. If the member dies before receiving the payments, the beneficiary receives the remaining payments.

Cost-of-Living Adjustments

Retired members receive annual cost-of-living adjustments (COLAs) equal to 80 percent of the previous year's change in the Consumer Price Index (CPI) with a minimum of four percent and maximum of five percent of the monthly benefit received the previous year.

Members receive a cumulative maximum of 65 percent of their base benefit in cost-of-living adjustments.

Survivor's Benefit

A 100-percent joint and survivor benefit, based on the member's accrued base benefit, will be paid to the eligible surviving spouse if the member is fully vested and dies prior to retirement.

With no eligible surviving spouse, the member's unemancipated minor children will receive 50 percent of the fully-vested member's accrued base benefit.

Contributions

MOSERS is a non-contributory plan. Members are not required to make any contributions; the entire cost is paid by the State of Missouri. The contribution rate paid by the State for fiscal year 1990 was 9.9 percent of the membership payroll.

Insurance Plans

Long-Term Disability

Members of MOSERS in a position normally requiring 1,000 hours of work a year are covered under the Long-Term Disability Plan, unless they work for a State agency which has its own long-term disability plan. Eligible employees receive 60 percent of their compensation minus primary social security, Workers' Compensation, and employer provided income. The benefit

commences on the 181st day of disability or after sick leave expires, whichever occurs last. Long-term disability benefits cease when the disability ends, when retirement benefits begin, when the member returns to work, or upon the member's death.

Life Insurance

Basic Life Insurance

Active employees covered under the MOSERS life insurance plan receive \$15,000 of Basic Life Insurance on the first of the month coinciding with or following the date of employment. The cost of Basic Life Insurance is paid by the State. Eligible members, who immediately retire from active employment, are provided \$5,000 of Basic Life Insurance by the State—at no cost to the member. Retired members may convert up to \$10,000 to an individual policy with the insurance carrier at individual rates. Terminating employees may convert up to \$15,000 of Basic Life Insurance at individual rates.

Optional Life Insurance

Members working for an agency covered under MOSERS life insurance plan are eligible for Optional Life Insurance on the first of the month coinciding with or following their date of employment. Members are responsible for paying the entire cost of their

Optional Life Insurance. The two options available are:

— Option A: Employee may elect 1, 2, or 3 times annual salary. The amount automatically increases or decreases each May 1 based on the preceding January salary.

— Option B: Employee may elect a flat amount not to exceed three times their annual salary.

Members who immediately retire from active employment after August 13, 1988, may continue up to \$10,000 of their Optional Life Insurance at the group rate and may convert their remaining Optional Life Insurance at individual rates. Terminating employees may convert an amount up to the amount they had as an active employee at individual rates.

Medical Insurance

Active Employees

Members of MOSERS working for an agency covered by the Missouri State Medical Care Plan are eligible for medical care coverage on the first of the month following their date of employment. The annual deductible for an individual is \$300, and the maximum deductible for family coverage is \$900.

The Medical Care Plan pays 80 percent of the usual, customary, and reasonable (UCR) charges after the deductible is paid. Out-patient diagnostic X-ray and laboratory work is paid at 100 percent. The yearly out-of-pocket

maximum is \$1,800 for an individual and \$3,900 for a family.

A maximum lifetime benefit of \$1,000,000 is provided to each eligible member of the Plan.

If a member uses a provider enrolled in the Preferred Provider Organization (PPO), the plan will pay 90% of the UCR charges instead of the regular 80 percent. This could significantly reduce the annual out-of-pocket maximum for members of the plan. Also, members are only responsible for a \$10 co-payment for any office visit provided by a PPO physician.

Under the federal law COBRA, employees may choose to continue their medical coverage at termination of employment, unless eligible for Medicare or some other group health plan, but participants must pay the entire cost. Effective June 14, 1989, terminated vested members may elect to continue medical coverage by paying the entire premium cost.

Retired Employees

Retiring employees may continue their medical care coverage if they have been covered under the Missouri State Medical Care Plan for two years prior to termination or since they were first eligible for medical coverage. Retirees 65 or older and retirees eligible for Medicare due to a disability may select one of three supplemental medical care plans.

The three plans all coordinate with Medicare, but they differ in coverage and cost. The deductible for the individual and family is the same as the deductible for active employees.

HMO

Employees working for an agency covered under the MOSERS Medical Care Plan who live in a Health Maintenance Organization (HMO) service area are provided the opportunity to enroll in either an HMO or the MOSERS Medical Care Plan. HMO coverage is provided to employees living in the St. Louis, central Missouri, and Kansas City areas. No annual deductible is charged, but co-payments are required for some medical treatments. The types of coverage and the costs vary with each HMO. During fiscal year 1990, as many as seven HMOs were available to MOSERS members.

Judges/ Administrative Law Judges

MOSERS also is responsible for the administration of the retirement, life insurance, disability, and medical benefits for judges of state courts and administrative law judges/legal advisors of the Division of Workers' Compensation. (Administrative law judges/legal advisors will hereafter be referred to as ALJs.) The benefits provided to judges and ALJs are funded separately. Judges' benefits are paid by the State on a "pay-as-you-go" basis, while the benefits for ALJs are funded by the State. The State contributed 30.17% of the ALJs' payroll each month during fiscal year 1990.

Normal Retirement

Judges may retire at age 62 or at age 60 with 15 years. The benefit is based on the years and months of Creditable Service the judge has and the judge's salary.

ALJs are eligible for normal retirement when they reach at least age 65 or when they have reached age 60 and have 20 or more years of Creditable Service. The benefit is based on years and full months of service and salary.

Early Retirement

Judges with less than 15 years of service may elect retirement as early as age 60. Judges who retire between age 60 and 62 receive a benefit equal to the proportion of normal retirement benefits that the judges' service bears to 15 years.

There are no early retirement provisions for ALJs.

Benefit Formula

Judges with 12 or more years of service receive a monthly benefit of one-half the salary of a judge in the highest court in which the judge served at the time the judge retires from office. Judges with less than 12 years of service receive a benefit that is calculated based on the proportion of normal retirement benefits that the judge's service bears to 12 years.

ALJs with 12 or more years of service receive a monthly benefit of one-half of their average monthly salary, based on their highest annual salary.

ALJs with less than 12 years of service receive a benefit equal to the proportion of normal retirement benefits that their service bears to 12 years.

Creditable Service

Creditable Service is a combination of the Creditable Prior Service accrued before becoming a member and the years and full months of service judges or ALJs have as a member of their respective retirement plans. Creditable Service is used in determining the amount of the benefit under each retirement plan.

Cost-of-Living

Judges and ALJs may apply to become special consultants, thus providing annual cost-of-living adjustments.

Survivors Benefit

The survivor benefit of an active judge or ALJ equals 50 percent of the benefit accrued to age 70, unless the period of service could not have been 12 years by age 70 which results in no benefit being paid. The survivor benefit of a terminated judge or ALJ with 12 or more years of service is 50 percent of the accrued benefit. The benefit to the survivor of a retired judge equals 50 percent of the monthly retirement benefit.

Disability

Judges who become disabled receive one-half of their salary on the date of disability. This is a Constitutionally-provided disability benefit paid until his/her term expires. In addition, judges and ALJs receive the same Long-Term

Disability coverage as the other members of MOSERS.

Life Insurance

The Basic and Optional Life Insurance benefits provided to judges and ALJs are the same as those provided to other members of MOSERS as described on page 17. Basic Life Insurance for retiring or terminating judges and ALJs ends on the date of termination of employment.

Retired judges and ALJs may convert Basic Life Insurance to an individual policy and pay the individual rate.

Medical Insurance

The medical insurance coverage provided to judges and ALJs is the same coverage provided to members of MOSERS as described previously.



Photo Courtesy of the Missouri Department of Conservation

Financial Section



KPMG Peat Marwick

Certified Public Accountants

1010 Market Street
St. Louis, MO 63101**Independent Auditors' Report**

September 7, 1990

The Board of Trustees
Missouri State Employees' Retirement System
Jefferson City, Missouri 65101

We have audited the component unit financial statements of the Missouri State Employees' Retirement System as of and for the year ended June 30, 1990, as listed in the accompanying table of contents. These component unit financial statements are the responsibility of the Retirement System's management. Our responsibility is to express an opinion on these component unit financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the component unit financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the component unit financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the component unit financial statements referred to above present fairly, in all material respects, the financial position of the Missouri State Employees' Retirement System, at June 30, 1990, and the results of its operations and cash flows for the year then ended in conformity with generally accepted accounting principles.

As discussed in note 2 to the component unit financial statements, the Missouri State Employees' Retirement System adopted Statement No. 9 of the Governmental Accounting Standards Board which requires the presentation of a statement of cash flows and certain other disclosures.

Our audit was made for the purpose of forming an opinion on the component unit financial statements taken as a whole. The combining and individual fund financial statements and supplementary information included in pages 36 through 44 are presented for purposes of additional analysis and are not a required part of the component unit financial statements of the Missouri State Employees' Retirement System. Such information, except for that portion marked "unaudited," on which we express no opinion, has been subjected to the auditing procedures applied in the audit of the component unit financial statements and, in our opinion, is fairly presented in all material respects in relation to the component unit financial statements taken as a whole.

Member Firm of
Klynveld Peat Marwick Goerdeler*Peat Marwick Main & Co.*

Missouri State Employees' Retirement System

Combined Balance Sheet – All Fund Types

June 30, 1990

	Fiduciary Fund Type Pension Trusts	Proprietary Fund Type Internal Service	Total (Memorandum Only)
ASSETS			
Contributions Receivable	\$ 9,246,117	\$ 5,669,769	\$ 14,915,886
Accrued Interest and Dividends	13,256,234	402,315	13,658,549
Accounts Receivable - Securities Sold	15,413,568	0	15,413,568
Accounts Receivable - Other	72,359	107,072	179,431
Investments; at Cost	1,683,929,701	25,252,566	1,709,182,267
Office Building, Equipment and Fixtures, Net of Accumulated Depreciation	1,536,959	0	1,536,959
Total Assets	<u>\$ 1,723,454,938</u>	<u>\$ 31,431,722</u>	<u>\$ 1,754,886,660</u>
LIABILITIES AND FUND EQUITY			
<i>Liabilities:</i>			
Accounts Payable - Securities Purchased	\$ 33,281,401	\$ 0	\$ 33,281,401
Collateral for Securities on Loan	106,890,700	0	106,890,700
Medical Claims Payable	0	12,506,957	12,506,957
Other	10,378,989	5,171,965	15,550,954
Total Liabilities	<u>150,551,090</u>	<u>17,678,922</u>	<u>168,230,012</u>
<i>Fund Equity:</i>			
Fund Balances:			
Reserved for Employees' Retirement Benefits:			
Member Contributions - MOSERS	482,785	0	482,785
State Contributions - MOSERS (Unfunded Actuarial Liability \$274,250,389)	1,568,366,140	0	1,568,366,140
State Contributions - ALJRS (Unfunded Actuarial Liability \$2,240,145)	4,054,923	0	4,054,923
Retained Earnings:			
Reserved for Employee Medical and Life Insurance Benefits:			
Basic Life Contributions in Excess of Funding Requirements	0	802,079	802,079
Accumulated State Contributions	0	31,574,926	31,574,926
Unreserved Accum. Employee Contrib. Deficit	0	(18,624,205)	(18,624,205)
Total Fund Equity	<u>1,572,903,848</u>	<u>13,752,800</u>	<u>1,586,656,648</u>
Total Liabilities and Fund Equity	<u>\$ 1,723,454,938</u>	<u>\$ 31,431,722</u>	<u>\$ 1,754,886,660</u>

See accompanying notes to the financial statements.

Missouri State Employees' Retirement System
Combined Statement of Revenues, Expenses, and
Changes in Fund Balance/Retained Earnings – All Fund Types

Year Ended June 30, 1990

	Fiduciary Fund Type Pension Trusts	Proprietary Fund Type Internal Service	Total (Memorandum Only)
REVENUES			
State Contributions	\$ 99,512,112	\$ 46,378,087	\$ 145,890,199
Member Contributions	0	15,658,445	15,658,445
Insured Plans Premium Receipts	0	25,446,443	25,446,443
State Contributions Basic Life Plan	0	2,164,340	2,164,340
Payments for Military Service Credit	715,433	0	715,433
State Reimbursements	5,838,700	0	5,838,700
Investment Income	162,295,482	1,927,530	164,223,012
Miscellaneous Income	205,402	348,054	553,456
Total Revenues	268,567,129	91,922,899	360,490,028
EXPENSES			
Retirement Benefits	57,575,548	0	57,575,548
Disability Benefits	996,712	0	996,712
Survivors' Benefits	2,178,282	0	2,178,282
Contribution Refunds	11,169	0	11,169
Medical Claims	0	49,407,467	49,407,467
Basic Life Benefits	0	6,000	6,000
Basic Life Premium Disbursements	0	2,163,524	2,163,524
Insured Plans Premium Disbursements	0	25,348,577	25,348,577
Premium Refunds	0	225,735	225,735
Administrative	8,289,159	4,933,409	13,222,568
Total Expenses	69,050,870	82,084,712	151,135,582
Revenues Over Expenses	199,516,259	9,838,187	209,354,446
Fund Balance/Retained Earnings July 1, 1989	1,373,387,589	3,914,613	1,377,302,202
Fund Balance/Retained Earnings June 30, 1990	\$ 1,572,903,848	\$ 13,752,800	\$ 1,586,656,648

See accompanying notes to the financial statements.

Missouri State Employees' Retirement System

Combined Statement of Cash Flows – All Fund Types

Year Ended June 30, 1990

	Fiduciary Fund Type Pension Trusts	Proprietary Fund Type Internal Service	Total (Memorandum Only)
Cash flows from operating activities:			
Cash received from employer and members	\$ 99,166,963	\$ 88,907,070	\$ 188,074,033
Cash reimbursements from state	5,789,880	0	5,789,880
Other miscellaneous income	205,993	346,024	552,017
Cash benefit payments	(60,750,542)	0	(60,750,542)
Cash payment for medical claims	0	(52,652,823)	(52,652,823)
Cash payment to members for basic life claims	0	(6,000)	(6,000)
Premium payments to outside carriers	0	(27,501,387)	(27,501,387)
Refund of premiums to members	0	(225,735)	(225,735)
Cash payment for contribution refunds	(10,556)	0	(10,556)
Cash payment for administration	(8,037,563)	(4,756,973)	(12,794,536)
Cash received from investment income	160,784,245	1,840,285	162,624,530
Net cash provided by operating activities	197,148,420	5,950,461	203,098,881
Cash flows from capital and related financing activities:			
Sale of fixed assets	5,087	0	5,087
Purchase of fixed assets	(117,685)	0	(117,685)
Net cash used for capital and related financing activities	(112,598)	0	(112,598)
Cash flows from investing activities:			
Purchase of investment securities	(3,065,778,742)	(130,870,571)	(3,196,649,313)
Cash disbursed for securities lending	(983,609,474)	0	(983,609,474)
Proceeds from sale and maturities of investment securities	2,785,771,186	125,371,647	2,911,142,833
Cash received from securities lending	1,061,661,524	0	1,061,661,524
Net cash used in investing activities	(201,955,506)	(5,498,924)	(207,454,430)
Net increase (decrease) in cash	(4,919,684)	451,537	(4,468,147)
Cash at beginning of year	(1,754,821)	(2,052,270)	(3,807,091)
Cash at end of year	\$ (6,674,505)	\$ (1,600,733)	\$ (8,275,238)
Reconciliation of revenues over expenses to net cash provided by operating activities:			
Revenues Over Expenses	\$ 199,516,259	\$ 9,838,187	\$ 209,354,446
Adjustments to reconcile revenues over expenses to net cash provided by operating activities:			
Depreciation	87,435	0	87,435
Change in assets and liabilities:			
Increase in operational accounts receivable	(2,517,380)	(962,197)	(3,479,577)
Increase (Decrease) in operational accounts payable	62,106	(2,925,529)	(2,863,423)
Total adjustments	(2,367,839)	(3,887,726)	(6,255,565)
Net cash provided by operating activities	\$ 197,148,420	\$ 5,950,461	\$ 203,098,881

See accompanying notes to the financial statements.

Missouri State Employees' Retirement System Notes to the Financial Statements

Year Ended June 30, 1990

(1) Plan Descriptions

MOSERS

The Missouri State Employees' Retirement System (MOSERS) is a single-employer, public employee retirement system administered in accordance with Sections 104.010 and 104.320 to 104.800 of the Revised Statutes of Missouri. As established under Section 104.320, RSMo, "The Missouri State Employees' Retirement System shall be a body corporate and an instrumentality of the state. In the System shall be vested the powers and duties specified in Sections 104.010 and 104.320 to 104.800 and such other powers as may be necessary or proper to enable it, its officers, employees and agents to carry out fully and effectively all the purposes of Sections 104.010 and 104.320 to 104.800."

Responsibility for the operation and administration of the System is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on the funding from the State of Missouri and the overall control of policies by State officials on the Board of Trustees, MOSERS is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as a pension trust fund.

Substantially all full-time State employees who are not covered under another State-sponsored retirement plan are eligible for membership in MOSERS. On June 30, 1990, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	18,039
Current employees	<u>46,834</u>
Total Membership	<u><u>64,873</u></u>

MOSERS provides retirement, death and disability benefits to its members. Benefits for general State employees are 50 percent vested after five years of creditable service and fully vested after 10 years of creditable service (four years for elected officials and six years for legislators). Employees may retire at or after age 55 and receive a reduced benefit (or full benefits if they have 30 years or more of service).

The State of Missouri is required to make all contributions to the Plan. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest, are refundable to the member or designated beneficiaries.

ALJRS

The Administrative Law Judges' Retirement System (ALJRS) is a single-employer, public employee retirement system administered in accordance with Sections 287.812 to 287.855, RSMo. Responsibility for the operation and administration of the System is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on the funding from the State of Missouri and the overall control of policies by State officials on the Board of Trustees, the Administrative Law Judges' Retirement System is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as a pension trust fund.

Individuals appointed or employed as Administrative Law Judges or Legal Advisors of the Division of Workers' Compensation are eligible for membership in ALJRS.

ALJRS provides retirement, death and disability benefits to its members. Employees who retire on or after age 65 with 12 or more years of creditable service are eligible for a monthly retirement benefit equal to one-half of the highest salary received during the period of service. Employees with less than 12 years of service are eligible for a reduced benefit upon retirement. The State of Missouri is required to make all contributions to the plan. On June 30, 1990, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	11
Current employees	<u>34</u>
Total Membership	<u>45</u>

Judicial Retirement Plan

The Judicial Retirement Plan provides retirement, death and disability benefits to those serving as judges in the State of Missouri. Retirement benefits for members of the judiciary are administered and paid by MOSERS. Amounts paid are reimbursed monthly from appropriations of State funds and are not obligations of MOSERS.

Supreme Court judges who are at least age 65 with eight or more years of creditable service in that capacity (or age 60 with 12 years of creditable service) are eligible for retirement benefits equal to one-half of the salary provided by law at the time of retirement. Other judges are eligible for retirement benefits at age 62 with 12 years of creditable service equal to one-half of the salary paid to the judge in the highest court served. On June 30, 1990, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	321
Current employees	<u>349</u>
Total Membership	<u>670</u>

Missouri State Insurance Plan

The Missouri State Insurance Plan is an internal service fund of the State of Missouri administered by MOSERS. It provides medical insurance for eligible members of the Missouri State Employees' Retirement System (except employees of the Department of Conservation, the Division of Employment Security, Highway Department, Highway Patrol, and State Colleges and Universities), members of the Judicial Retirement Plan, legislators, statewide elected officials, and certain members of the Public School Retirement System; basic life insurance for active employees of the aforementioned groups; and optional life insurance for active employees and retirees. Beginning January 1, 1986, eligible members were covered by the Long-Term Disability Plan. Due to the nature of MOSERS' reliance on the funding from the State of Missouri and the overall control of policies by State officials on the Board of Trustees, the Missouri State Insurance Plan is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as an internal service fund.

(2) Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting

The financial statements of the MOSERS, ALJRS, Missouri State Insurance Plan, and Judicial Retirement Plan were prepared using the accrual basis of accounting. Employer and employee contributions are recognized as revenues in the period in which employee services are performed and expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Medical claims expense is recognized when claims are incurred as estimated by the plan's insurance consultant. Beginning in 1990, MOSERS adopted Statement No. 9 of the Governmental Accounting Standards Board which requires the Statement of Cash Flows. The direct method of reporting cash flows is used.

Cash

Cash balances represent both operating cash accounts and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested, thus causing a negative book balance. The negative book balance has been reflected in accounts payable. The following is a schedule of the book and bank balances of all cash accounts. All deposits are fully insured by the FDIC. In addition to the FDIC insurance coverage on the accounts of MOSERS, the following securities were pledged to MOSERS by the Bank at June 30, 1990:

\$ 100,000	State of Alabama General Obligation 10.25%, Due 9/1/90
\$ 100,000	State of New Jersey General Obligation 9.00%, Due 1/1/96
\$ 100,000	State of Nevada 11.00%, Due 11/1/91
\$ 100,000	State of Nevada 11.00%, Due 11/1/90
\$ 100,000	Missouri Health and Education Authority 7.25%, Due 9/1/90
\$ 200,000	Cape Girardeau, Missouri 6.30%, Due 11/1/98
\$ 100,000	State of Washington General Obligation 11.90%, Due 9/1/92
\$ 100,000	State of Illinois 7.50%, Due 9/1/90
\$ 100,000	Commonwealth of Pennsylvania 8.00%, Due 10/1/91
<u>\$ 1,000,000</u>	

Cash Balances

<u>Pension Trusts</u>		<u>Internal Service</u>	
<u>Book</u>	<u>Bank</u>	<u>Book</u>	<u>Bank</u>
\$ (6,674,505)	\$ (1,984,998)	\$ (1,600,733)	\$ 701,461

Total Memorandum Only Columns

Total columns on the combined statements are captioned "(Memorandum Only)" to indicate that they are presented only to facilitate financial analysis. Data in these columns do not present financial position, results of operations, or cash flows in conformity with generally accepted accounting principles. Such data is not comparable to a consolidation since interfund eliminations have not been made.

Method Used to Value Investments

Investments are carried at cost subject to adjustment for significant market declines judged to be other than temporary. The cost of investments sold are determined using the average cost of that security. Bond premium and discount are not amortized and are recognized only upon sale or maturity of the related bonds. Amortization of bond premium and discount would not significantly affect total investment income. Dividend income is recognized based on dividends declared. Security transactions are accounted for on the trade date securities are purchased or sold. Net realized gains and losses on investments are included in investment income. Gains and losses on exchanges of fixed-income securities are recognized on a completed transaction basis. The following is a summary of the cost and market values of the investments as reported on the Combined Balance Sheet.

Investments

	Pension Trust Funds		Internal Service Fund		Total (Memorandum Only)	
	Cost	Market	Cost	Market	Cost	Market
Common Stock	\$ 686,606,170	\$ 779,494,509	\$ 0	\$ 0	\$ 686,606,170	\$ 779,494,509
Preferred Stocks	1,615,638	1,614,005	0	0	1,615,638	1,614,005
Fixed Income	626,558,126	637,766,294	17,656,327	17,479,358	644,214,453	655,245,652
Real Estate	108,225,863	104,359,992	0	0	108,225,863	104,359,992
Venture Capital	31,793,973	31,160,790	0	0	31,793,973	31,160,790
Short-Term Investments	196,549,831	196,549,831	7,596,239	7,596,239	204,146,070	204,146,070
Repurchase Agreements	32,580,100	32,580,100	0	0	32,580,100	32,580,100
Totals	<u>\$ 1,683,929,701</u>	<u>\$ 1,783,525,521</u>	<u>\$ 25,252,566</u>	<u>\$ 25,075,597</u>	<u>\$ 1,709,182,267</u>	<u>\$ 1,808,601,118</u>

Categories of Asset Risks

All investments are governed primarily by an investment authority known as the "prudent person rule." The "prudent person rule," as set forth by State statute, establishes a standard for all fiduciaries, which includes anyone who has authority with respect to the funds. The System's investments are categorized to give an indication of the level of risk assumed by the System at year-end. **Category 1** includes investments that are insured or registered or which are held by the System or its agent in the System's name. **Category 2** includes uninsured and unregistered investments which are held by the counterparty's trust departments or agent in the System's name. **Category 3** includes uninsured and unregistered investments which are held by the counterparty, its trust department, or agent, but not in the System's name. As of June 30, 1990, substantially all investments of the System are classified in **Category 1**.

Office Building, Equipment, and Fixtures

Office building, equipment, and fixtures are capitalized at cost when acquired. Improvements which increase the useful life of the property are capitalized. Maintenance and repairs are charged to expense as incurred. Depreciation is computed on the straight-line method over the estimated useful lives of the related assets of 3 to 40 years.

The following schedule represents the components of the amount reported on the Combined Balance Sheet.

Land		\$ 71,000
Building, Equipment and Fixtures	\$ 1,823,793	
Less Accumulated Depreciation	<u>357,834</u>	<u>1,465,959</u>
Total		<u><u>\$ 1,536,959</u></u>

(3) Funding Status and Progress

The amount shown as the "Pension Benefit Obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the System's funding status on a going-concern basis, assess progress being made in accumulating sufficient assets to pay benefits when due, and allow for comparisons with other public employees' retirement systems. The measure is independent of the actuarial funding method used to determine contributions to the plans.

The Pension Benefit Obligation was determined as part of an actuarial valuation of the System as of June 30, 1990. Significant actuarial assumptions used in the valuation include (a) a rate of return on the investment of present and future assets of 8.5% per year compounded annually, (b) projected salary increases of 5.0% per year compounded annually, attributable to inflation, (c) additional projected salary increases ranging from 1.0% to 4.0% per year, depending on age, attributable to seniority and/or merit, and (d) the assumption that benefits will increase 4.5% per year after retirement.

MOSERS

(Dollars in Thousands)

Pension Benefit Obligation

Retirees and beneficiaries currently receiving benefits	\$ 520,837
Terminated employees not yet receiving benefits	52,731
<i>Current Employees:</i>	
Accumulated employee contributions including allocated investment income	483
Employer financed — vested	890,858
Employer financed — non-vested	<u>101,408</u>
Total Pension Benefit Obligation	1,566,317
Net assets available for benefits, at cost (Market Value \$1,668,189)	<u>1,568,849</u>
Assets in excess of Pension Benefit Obligation	<u><u>\$ 2,532</u></u>

During the year ended June 30, 1990, the MOSERS plan experienced a net increase of \$55.3 million in the Pension Benefit Obligation. Of that change, a decrease of \$125 million was attributable to a change in assumptions used in the determination of this value.

ALJRS

(Dollars in Thousands)

Pension Benefit Obligation

Retirees and beneficiaries currently receiving benefits	\$ 2,479
Terminated employees not yet receiving benefits	65
<i>Current employees:</i>	
Accumulated employee contributions including allocated investment income	0
Employer financed — vested	3,561
Employer financed — non-vested	0
Total Pension Benefit Obligation	6,105
Net assets available for benefits, at cost (Market Value \$4,310)	4,055
Unfunded Pension Benefit Obligation	<u>\$ 2,050</u>

During the year ended June 30, 1990, the ALJRS plan experienced a net decrease of \$.01 million in the Pension Benefit Obligation. Of that change, a decrease of \$.3 million was attributable to a change in assumptions used in the determination of this value.

(4) Funding Policy

MOSERS and ALJRS are pension plans covering substantially all State of Missouri employees and law judges and legal advisors of the Division of Workers' Compensation. The State of Missouri is obligated by State law to make all required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age actuarial cost method. The prior service costs are amortized over an initial amortization period of 40 years.

MOSERS — With the exception of fiscal years beginning in 1989, contributions were made in accordance with actuarially determined requirements. Beginning in fiscal year 1989, the rate is statutorily set at 9.9%. This rate remains in effect unless revenues do not exceed expenses by 375% in any one year or until fiscal year 1993.

ALJRS — Contributions were made in accordance with actuarially determined requirements.

Historical trend information on the funding of the Pension Plans can be found in the required supplementary information on pages 34 and 35.

Missouri State Insurance Plan

The Missouri State Insurance Plan is funded through both employer and employee contributions. Employer contribution rates are statutorily determined as a fixed dollar amount per month per eligible employee. Employee contribution rates are established by the Board of Trustees based on projected claims experience and funding provided by employer contributions. State statutes provide that the employer contributions are to be used to provide for the employees' medical costs (and their dependents if appropriations are provided). The Unreserved Accumulated Employee Contribution Deficit represents the negative balance arising from the employee premiums being less than needed to cover their dependent expenses and no appropriations were provided for dependent coverage. Contributions totaling \$64,200,872 were made to the Plan during the year in accordance with these requirements.

(5) Plan Termination

The Missouri State Employees' Retirement System and its related plans are administered in accordance with Missouri statutes. The statutes do not provide for termination of the plans under any circumstances.

(6) Contingencies

As of June 30, 1990, the Missouri State Employees' Retirement System was subject to the following court judgment:

Michelle Higgins, et al. v. MOSERS, Cole County, Case No. CV189-567CC. This is a class action brought by Michelle Higgins on behalf of women covered under the Missouri State Medical Care Plan who conceived a child prior to December 31, 1983, and gave birth after January 1, 1984.

The Missouri Court of Appeals reversed and entered judgment in favor of Higgins and remanded for a determination of damages only.

Although the damages in the Higgins case have been estimated to be in the range of \$254,000 to \$261,000, no judgment has been rendered. In the opinion of management, the ultimate aggregate amount to be paid as a result of this judgment will not be material to the financial statements. No provision for payment of this judgment has been included in the accompanying financial statements.

Certain venture capital investments with a carrying value at June 30, 1990, totaling approximately \$6,000,000 represent limited partnership interests which are currently in receivership. The receiver is in the process of dissolving these partnerships and liquidating their respective net assets. In the opinion of management, the effect upon the realization of these venture capital investments as a result of these proceedings will not be material to the System's financial statements.

(7) Required Supplementary Information

Ten-year historical trend information designed to provide information about MOSERS and its related plans' progress made in accumulating sufficient assets to pay benefits when due is presented on pages 34 and 35 as Required Supplementary Information. Certain required information is not available for the full ten years, and is noted as such.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and ratios that use the pension benefit obligation as a factor.

Looking at the pension benefit obligation, or the unfunded portion (or the assets in excess) of the pension benefit obligation, in isolation can be misleading. Expressing net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the extent to which a public employees' retirement system (PERS) is funded. Analysis of this percentage over time indicates whether the PERS is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the PERS. Expressing the unfunded pension benefit obligation (or assets in excess of the pension benefit obligation) as a percentage of the annual covered payroll approximately adjusts for the effects of inflation and aids analysis of funding progress. Generally, the smaller the unfunded percentage, the stronger the PERS.

The following is a list of significant changes which have occurred during the ten years presented, and should be considered when reviewing the data.

1980 — Legislation was enacted which required funding the cost-of-living adjustments of members retiring after August 30, 1980. MOSERS was given a three-year time period to bring the funding in full compliance; therefore, the Board of Trustees implemented a graduated increase to comply with the legislation. By fiscal year 1983, those liabilities were included in the required actuarially determined contribution rate. Cost-of-living adjustments for those members who retired prior to September 1, 1980, remained on a "pay-as-you-go" basis.

1983 — The actuarial valuation performed to determine the required contribution rate for fiscal year 1985 had the following significant changes expressed in both the dollar impact and the effect on the percentage of payroll:

	<u>Dollar Amount</u>	<u>% of Payroll</u>
Refinement of the funding method application	\$ (5,417,672)	(1.9)
Actuarial gains	(1,181,084)	(.3)
Increase in covered payroll	(2,403,795)	(.4)

1984 — The actuarial valuation performed to determine the required contribution rate for fiscal year 1986 had the following significant changes:

	<u>Dollar Amount</u>	<u>% of Payroll</u>
Increase due to benefit changes	\$ 7,550,582	1.4

1986 — The actuarial valuation performed to determine the required contribution rate for fiscal year 1988 had the following significant changes:

	<u>Dollar Amount</u>	<u>% of Payroll</u>
Funding of previously "pay-as-you-go" benefits	\$ 9,610,413	1.46
Raising the cap on cost of living adjustments from 50% to 65% of the initial benefit	3,869,725	.63
Providing normal retirement at age 55 with 30 years of service	1,267,139	.20

1988 — Legislation enacted setting the retirement contribution rate at 9.9% for fiscal years 1990 through 1993 unless total revenues (excluding unrealized appreciation of investments) is less than 375% of total expenses in any one year. The Board of Trustees voted to adopt the 9.9% beginning with fiscal year 1989. During 1988, MOSERS received approximately 2,700 members transferring from the Public School Retirement System and approximately 540 members transferring from the Lincoln University Employee Retirement System.

1989 — MOSERS total revenues were less than 375% of total expenses for the fiscal year ended June 30, 1989. The Board of Trustees voted to keep the retirement contribution rate set at 9.9% through fiscal year 1993. During 1989, approximately 120 members transferred from the Public School Retirement System to MOSERS.

1990 — The Board of Trustees approved a change in the actuarial rate of return assumption from 8% to 8.5% beginning with the valuation as of June 30, 1990.

MOSERS	<u>Dollar Amount</u>	<u>% of Payroll</u>
Change in assumptions	\$ (16,205,924)	(1.63)
Other experience and non-recurring items	(2,883,263)	(.29)
ALJRS		
Change in assumptions	(42,277)	(2.21)
Other experience and non-recurring items	21,234	1.11

Required Supplementary Information

Ten Years Ended June 30, 1990

MOSERS' Valuation (Dollars in Thousands)

Valuation Date	Pension Benefit Obligation PBO	Net Assets At Cost	Assets As a % of PBO	Unfunded (Assets in Excess of) Pension Benefit Obligation UFPBO	Active Member Payroll	UFPBO As a % of Active Member Payroll
June 30, 1990	\$ 1,566,317	\$ 1,568,849	100.2%	\$ (2,532)	\$ 994,228	(0.3)%
June 30, 1989	1,510,976	1,370,144	90.7%	140,832	895,170	15.7 %
June 30, 1988	1,266,733	1,214,006	95.8%	52,727	824,486	6.4 %
June 30, 1987	982,736	1,053,361	107.2%	(70,625)	692,363	(10.2)%

Information prior to June 30, 1987, is not available.

ALJRS' Valuation (Dollars in Thousands)

Valuation Date	Pension Benefit Obligation PBO	Net Assets At Cost	Assets As a % of PBO	Unfunded (Assets in Excess of) Pension Benefit Obligation UFPBO	Active Member Payroll	UFPBO As a % of Active Member Payroll
June 30, 1990	\$ 6,105	\$ 4,055	66.4%	\$ 2,050	\$ 1,913	107.2%
June 30, 1989	6,223	3,243	52.1%	2,980	1,870	159.4%
June 30, 1988	5,211	2,632	50.5%	2,579	1,408	183.2%
June 30, 1987	4,086	2,278	55.8%	1,808	1,418	127.5%

Information prior to June 30, 1987, is not available.

MOSERS' Revenue By Source

Fiscal Year	Employer Contribution Rate	Employer Contribution Amount	Employer Contributions Service Transfers	Member Payments For Military Service Credit	State Reimbursements For Nonfunded Benefits	Investment Income	Other	Total
1990	9.9000%	\$ 98,135,838	\$ 770,697	\$ 715,433	\$ 5,838,700	\$ 161,877,087	\$ 204,872	\$ 267,542,627
1989	9.9000%	89,177,022	4,274,011	376,701	5,549,696	117,968,268	20,901	217,366,599
1988	12.1031%	96,412,071	52,223,619	596,649	9,084,452	52,057,522	26,469	210,400,782
1987	10.0000%	71,969,009	0	143,670	15,238,962	185,051,476	(43,198)	272,359,919
1986	11.3328%	71,972,655	0	0	11,059,943	129,568,053	(10,051)	212,590,600
1985	10.5167%	58,295,102	0	0	9,845,857	70,642,944	(802,437)	137,981,466
1984	13.1000%	67,753,003	0	0	8,323,040	48,045,669	53	124,121,765
1983	12.0000%	57,166,556	0	0	7,779,495	58,007,997	716	122,954,764
1982	9.5000%	42,448,992	0	0	8,781,407	11,125,102	65	62,355,566
1981	9.5000%	43,736,642	0	0	7,046,677	27,464,519	153	78,247,991

MOSERS' Expenses By Type

Fiscal Year	Benefits	Contribution Refunds	Administrative	Total
1990	\$ 60,559,008	\$ 11,169	\$ 8,267,790	\$ 68,837,967
1989	53,711,546	4,298	7,512,434	61,228,278
1988	43,431,100	25,889	6,299,182	49,756,171
1987	37,881,039	43,549	7,059,516	44,984,104
1986	30,832,582	473,921	5,584,410	36,890,913
1985	27,093,057	82,333	3,365,898	30,541,288
1984	23,450,927	141,315	2,513,718	26,105,960
1983	20,735,516	202,715	2,002,860	22,941,091
1982	18,038,756	1,806,642	755,814	20,601,212
1981	16,211,727	261,148	696,798	17,169,673

ALJRS' Revenues By Source

Fiscal Year	Employer Contribution Rate	Employer Contribution Amount	Funds Transfer From MOSERS	Investment Income	Other	Total
1990	30.1700%	\$ 605,577	\$ 0	\$ 418,395	\$ 530	\$ 1,024,502
1989	24.9800%	513,199	0	279,364	78	792,641
1988	24.9800%	359,066	0	112,845	105	472,016
1987	24.9800%	346,596	0	384,409	(89)	730,916
1986	24.9800%	255,229	0	246,517	(19)	501,727
1985	18.3733%	152,743	802,440	141,569	1	1,096,753

Plan established in fiscal year 1985.

ALJRS' Expenses By Type

Fiscal Year	Benefits	Administrative	Total
1990	\$ 191,534	\$ 21,369	\$ 212,903
1989	163,327	17,819	181,146
1988	104,757	13,412	118,169
1987	52,983	14,665	67,648
1986	11,412	10,624	22,036
1985	0	6,746	6,746

Plan established in fiscal year 1985.

Missouri State Employees' Retirement System Combining Balance Sheet – Pension Trust Funds

June 30, 1990

	MOSERS	ALJRS	Total
ASSETS			
Contributions Receivable	\$ 9,196,648	\$ 49,469	\$ 9,246,117
Accrued Interest and Dividends	13,222,244	33,990	13,256,234
Accounts Receivable - Securities Sold	15,374,046	39,522	15,413,568
Accounts Receivable - Other	72,173	186	72,359
Investments; at Cost	1,679,611,915	4,317,786	1,683,929,701
Office Building, Equipment and Fixtures, Net of Accumulated Depreciation	1,536,959	0	1,536,959
Total Assets	<u>\$ 1,719,013,985</u>	<u>\$ 4,440,953</u>	<u>\$ 1,723,454,938</u>
LIABILITIES AND FUND BALANCES			
Liabilities:			
Accounts Payable - Securities Purchased	\$ 33,196,064	\$ 85,337	\$ 33,281,401
Collateral for Securities on Loan	106,616,620	274,080	106,890,700
Other	10,352,376	26,613	10,378,989
Total Liabilities	<u>150,165,060</u>	<u>386,030</u>	<u>150,551,090</u>
Fund Balances:			
Reserved for Employee Retirement Benefits:			
Member Contributions - MOSERS	482,785	0	482,785
State Contributions - MOSERS	1,568,366,140	0	1,568,366,140
State Contributions - ALJRS	0	4,054,923	4,054,923
Total Fund Balances	<u>1,568,848,925</u>	<u>4,054,923</u>	<u>1,572,903,848</u>
Total Liabilities and Fund Balances	<u>\$ 1,719,013,985</u>	<u>\$ 4,440,953</u>	<u>\$ 1,723,454,938</u>

See accompanying Independent Auditors' Report.

Missouri State Employees' Retirement System
Combining Statement of Revenues, Expenses, and
Changes in Fund Balances – Pension Trust Funds

Year Ended June 30, 1990

	MOSERS	ALJRS	Total
REVENUES			
State Contributions	\$ 98,906,535	\$ 605,577	\$ 99,512,112
Payments for Military Service Credit	715,433	0	715,433
State Reimbursements	5,838,700	0	5,838,700
Investment Income	161,877,087	418,395	162,295,482
Miscellaneous Income	204,872	530	205,402
Total Revenues	267,542,627	1,024,502	268,567,129
EXPENSES			
Retirement Benefits	57,384,014	191,534	57,575,548
Disability Benefits	996,712	0	996,712
Survivors' Benefits	2,178,282	0	2,178,282
Contribution Refunds	11,169	0	11,169
Administrative	8,267,790	21,369	8,289,159
Total Expenses	68,837,967	212,903	69,050,870
Revenues Over Expenses	198,704,660	811,599	199,516,259
Fund Balances July 1, 1989	1,370,144,265	3,243,324	1,373,387,589
Fund Balances June 30, 1990	\$ 1,568,848,925	\$ 4,054,923	\$ 1,572,903,848

See accompanying Independent Auditors' Report.

Missouri State Employees' Retirement System

Combining Statement of Cash Flows – Pension Trust Funds

Year Ended June 30, 1990

	MOSERS	ALJRS	Total
Cash flows from operating activities:			
Cash received from employer and members	\$ 98,571,031	\$ 595,932	\$ 99,166,963
Cash reimbursements from state	5,734,115	55,765	5,789,880
Other miscellaneous income	205,093	900	205,993
Cash benefit payments	(60,559,008)	(191,534)	(60,750,542)
Cash payment for contribution refunds	(10,556)	0	(10,556)
Cash payment for administration	(7,960,150)	(77,413)	(8,037,563)
Cash received from investment income	159,235,658	1,548,587	160,784,245
Net cash provided by operating activities	195,216,183	1,932,237	197,148,420
Cash flows from capital and related financing activities:			
Sale of fixed assets	5,087	0	5,087
Purchase of fixed assets	(117,685)	0	(117,685)
Net cash used for capital and related financing activities	(112,598)	0	(112,598)
Cash flows from investing activities:			
Purchase of investment securities	(3,036,250,821)	(29,527,921)	(3,065,778,742)
Cash disbursed for securities lending	(974,135,880)	(9,473,594)	(983,609,474)
Proceeds from sale and maturities of investment securities	2,758,940,147	26,831,039	2,785,771,186
Cash received from securities lending	1,051,436,175	10,225,349	1,061,661,524
Net cash used in investing activities	(200,010,379)	(1,945,127)	(201,955,506)
Net increase (decrease) in cash	(4,906,794)	(12,890)	(4,919,684)
Cash at beginning of year	(1,750,699)	(4,122)	(1,754,821)
Cash at end of year	\$ (6,657,493)	\$ (17,012)	\$ (6,674,505)
Reconciliation of revenues over expenses to net cash provided by operating activities:			
Revenues Over Expenses	\$ 198,704,660	\$ 811,599	\$ 199,516,259
Adjustments to reconcile revenues over expenses to net cash provided by operating activities:			
Depreciation	87,435	0	87,435
Change in assets and liabilities:			
(Increase) Decrease in operational accounts receivable	(3,637,073)	1,119,693	(2,517,380)
Increase in operational accounts payable	61,161	945	62,106
Total adjustments	(3,488,477)	1,120,638	(2,367,839)
Net cash provided by operating activities	\$ 195,216,183	\$ 1,932,237	\$ 197,148,420

See accompanying Independent Auditors' Report.

Missouri State Employees' Retirement System

Schedule of Administrative Expenses

Year Ended June 30, 1990

	<u>Fiduciary Fund Type - Pension Trusts</u>			<u>Proprietary Fund Type Internal Service</u>
	<u>MOSERS</u>	<u>ALJRS</u>	<u>Total</u>	
PERSONAL SERVICES				
Salaries	\$ 716,394	\$ 1,852	\$ 718,246	\$ 437,116
Employee Fringe Benefits	170,627	441	171,068	104,528
Total Personal Services	887,021	2,293	889,314	541,644
PROFESSIONAL SERVICES				
Investment Services	6,435,993	16,635	6,452,628	30,804
Actuarial Services	122,134	316	122,450	120,467
Attorney Services	289,521	748	290,269	49,282
Auditing Services	53,703	139	53,842	17,962
Physical Examinations	12,330	32	12,362	0
Claims Administration Services	0	0	0	3,886,012
Total Professional Services	6,913,681	17,870	6,931,551	4,104,527
COMMUNICATIONS				
Postage and Mailing	53,326	138	53,464	83,661
Telephone	13,805	36	13,841	6,815
Printing	31,513	81	31,594	70,918
Total Communications	98,644	255	98,899	161,394
BUILDING AND GROUNDS				
Depreciation	29,867	0	29,867	0
Utilities	21,387	55	21,442	10,367
Maintenance	25,696	66	25,762	0
Rent	0	0	0	10,765
Total Building and Grounds	76,950	121	77,071	21,132
EQUIPMENT				
Depreciation	57,568	0	57,568	0
Maintenance	31,722	82	31,804	0
Rental	113,286	293	113,579	0
Reimbursed Shared Expenses	(48,361)	106	(48,255)	48,707
Loss on Sale of Equipment	1,931	0	1,931	0
Total Equipment	156,146	481	156,627	48,707
TRAVEL AND MEETINGS				
Board Travel and Meetings	15,906	41	15,947	1,247
Staff Meals and Travel	51,952	134	52,086	6,043
State Car	1,835	5	1,840	0
Total Travel and Meetings	69,693	180	69,873	7,290
GENERAL				
Educational Materials	3,217	8	3,225	100
Office Supplies	53,347	138	53,485	47,968
Subscriptions and Dues	9,091	23	9,114	647
Total General	65,655	169	65,824	48,715
Total Administrative Expenses	\$ 8,267,790	\$ 21,369	\$ 8,289,159	\$ 4,933,409

See accompanying Independent Auditors' Report.

Missouri State Employees' Retirement System
Internal Service Fund
Ten-Year Historical Data
 Ten Years Ended June 30, 1990

Revenues By Source

Fiscal Years	Member Contributions	Investment Income	State Contributions	Other	Total
1990	\$ 15,658,445	\$ 1,927,530	\$ 46,378,087	\$ 27,958,837	\$ 91,922,899
1989	15,548,221	898,264	45,111,161	23,238,515	84,796,161
1988	14,744,801	791,492	33,613,800	18,072,125	67,222,218
1987	13,697,408	1,180,017	26,841,381	14,743,260	56,462,066
1986	13,269,215	1,171,325	25,692,367	9,465,907	49,598,814
1985	11,637,144	1,262,153	24,407,725	3,757,028	41,064,050
1984	12,523,067	730,179	27,278,189	2,136,413	42,667,848
1983	10,367,535	643,710	20,125,221	804,458	31,940,924
1982	10,435,639	1,259,285	13,835,468	136,083	25,666,475
1981	8,418,658	1,350,531	13,556,242	0	23,325,431

Expenses By Type

Fiscal Years	Medical Claims	Administrative	Other	Total
1990	\$ 49,407,467	\$ 4,933,409	\$ 27,743,836	\$ 82,084,712
1989	50,881,898	2,985,644	23,122,807	76,990,349
1988	54,210,305	3,279,229	17,471,794	74,961,328
1987	41,705,334	2,725,664	14,046,802	58,477,800
1986	41,637,796	1,688,469	9,327,275	52,653,540
1985	32,380,372	1,341,813	4,034,152	37,756,337
1984	30,336,073	1,280,426	2,402,108	34,018,607
1983	34,235,254	1,138,745	1,139,458	36,513,457
1982	27,111,914	1,060,485	487,083	28,659,482
1981	24,614,104	819,086	305,000	25,738,190

See accompanying Independent Auditors' Report.

MOSERS Investment Summary

Year Ended June 30, 1990

Type of Investment	July 1, 1989				June 30, 1990		% Total Market	Projected Yield On Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income	\$ 371,518,960	\$ 404,667,531	\$ 713,703,854	\$ 460,439,577	\$ 624,783,236	\$ 636,130,989	35.76%	7.80%
Common Stocks	692,505,005	779,850,433	541,742,675	549,253,246	684,994,434	777,495,797	43.70%	3.97%
Preferred Stocks	4,741,183	3,835,569	3,168,141	6,293,742	1,615,583	1,609,867	0.09%	4.84%
Real Estate								
- Loan and Mort.	22,789,519	22,912,105	667,627	67,185	23,389,961	24,362,371	1.37%	10.76%
- Equity	85,485,127	79,910,048	1,008,631	1,911,724	84,582,034	79,730,031	4.48%	7.27%
Total Real Estate	108,274,646	102,822,153	1,676,259	1,978,909	107,971,995	104,092,401	5.85%	8.08%
Venture Capital								
- Ltd. Partnerships	25,924,617	26,199,273	6,579,120	791,375	31,712,361	31,080,890	1.75%	4.64%
Short-Term Invest.	180,580,436	180,580,436	1,701,221,054	1,685,731,904	196,069,587	196,045,855	11.02%	8.26%
Repurchase Agreements	0	0	98,110,695	65,645,976	32,464,719	32,496,561	1.83%	8.36%
Total Investments	\$1,383,544,847	\$1,497,955,395	\$3,066,201,798	\$2,770,134,730	\$1,679,611,915	\$1,778,952,360	100.00%	6.11%

ALJRS Investment Summary

Year Ended June 30, 1990

Type of Investment	July 1, 1989				June 30, 1990		% Total Market	Projected Yield On Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income	\$ 874,779	\$ 952,831	\$ 2,536,529	\$ 1,636,419	\$ 1,774,889	\$ 1,635,305	35.76%	7.80%
Common Stocks	1,638,430	1,845,085	1,925,373	1,952,066	1,611,737	1,998,712	43.70%	3.97%
Preferred Stocks	11,164	9,032	11,260	22,368	56	4,138	0.09%	4.84%
Real Estate								
- Loan and Mort.	47,354	47,485	2,373	239	49,488	62,628	1.37%	10.76%
- Equity	207,589	194,295	3,585	6,794	204,379	204,962	4.48%	7.27%
Total Real Estate	254,943	241,780	5,957	7,033	253,867	267,591	5.85%	8.08%
Venture Capital								
- Ltd. Partnerships	61,042	61,689	23,382	2,813	81,612	79,900	1.75%	4.64%
Short-Term Invest.	425,195	425,195	6,046,201	5,991,152	480,244	503,976	11.02%	8.26%
Repurchase Agreements	0	0	348,689	233,308	115,381	83,539	1.83%	8.36%
Total Investments	\$ 3,265,553	\$ 3,535,612	\$10,897,391	\$ 9,845,158	\$ 4,317,786	\$ 4,573,161	100.00%	6.11%

See accompanying Independent Auditors' Report.

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS' Office.

Internal Service Fund Investment Summary

Year Ended June 30, 1990

Type of Investment	July 1, 1989				June 30, 1990		% Total Market	Projected Yield On Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income								
- Treasury Bonds, Notes, Bills	\$ 8,913,174	\$ 9,039,566	\$ 25,376,813	\$ 17,633,467	\$ 16,656,520	\$ 16,493,438	65.78%	7.57%
- Government Bonds	1,002,109	990,155	0	499,922	502,187	497,345	1.98%	7.04%
- Corporate Bonds	1,509,335	1,510,325	497,620	1,509,335	497,620	488,575	1.95%	8.90%
Total Fixed Income	11,424,618	11,540,046	25,874,433	19,642,724	17,656,327	17,479,358	69.71%	7.59%
Short-Term Investments	8,329,025	8,329,025	104,996,138	105,728,924	7,596,239	7,596,239	30.29%	7.88%
Total Investments	\$ 19,753,643	\$ 19,869,071	\$ 130,870,571	\$ 125,371,648	\$ 25,252,566	\$ 25,075,597	100.00%	7.68%

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS' Office.

Pension Trust Funds Schedule of Ten Largest Investment Holdings

June 30, 1990

Shares	Description	Cost	Market	% of Funds Total Market
345,300	Bristol Myers Squibb Co. Common	\$ 15,827,513	\$ 21,883,388	1.31
180,300	International Business Machines Corp. Common	20,447,201	21,185,250	1.27
252,500	Texaco Inc. Common	12,402,900	14,297,813	0.86
208,500	Tenneco Inc. Common	10,197,431	14,125,875	0.85
210,400	Mobil Corp. Common	10,421,345	12,992,200	0.78
331,700	K-Mart Corp. Common	12,263,693	11,609,500	0.70
240,300	Exxon Corp. Common	10,985,196	11,504,363	0.69
195,400	Enron Corp. Common	10,378,630	11,088,950	0.66
208,400	Aetna Life & Casualty Co. Common	11,975,208	10,888,900	0.65
317,700	BCE Inc. Common (Canada)	11,091,258	10,722,375	0.64
	Totals	<u>\$ 125,990,375</u>	<u>\$ 140,298,614</u>	<u>8.41</u>

See accompanying Independent Auditors' Report.

Pension Trust Funds **Schedule of Brokerage Commissions Paid**

Year Ended June 30, 1990

Brokerage Firm	Number of Transactions	Number of Shares	Commissions Paid	Commissions Per Share
Shearson/American Express	294	4,487,092	\$ 274,698	\$ 0.06
Alpha Management/Broadcourt Capital	524	2,694,758	177,993	0.07
Bridge Trading	518	2,447,662	154,486	0.06
Edwards (A.G.) & Sons, Inc.	130	1,958,800	131,955	0.07
Merrill Lynch Pierce Fenner	393	1,954,600	109,082	0.06
Goldman Sachs & Co.	564	1,977,288	102,105	0.05
Smith Barney Harris Upham	148	1,542,450	95,441	0.06
Kidder, Peabody & Co., Inc.	189	1,396,520	87,315	0.06
Prudential Bache Securitiew	108	1,432,693	86,120	0.06
First Boston Corporation	297	1,498,209	74,516	0.05
Paine, Webber, Jackson & Co.	98	1,125,371	64,563	0.06
Ernst & Co.	11	976,700	58,602	0.06
Donaldson, Lufkin & Jenre	32	792,000	47,520	0.06
Drexel Burnham Lambert Inc.	39	645,100	42,468	0.07
Bear, Stearns & Co.	58	483,122	28,413	0.06
Salomon Brothers Inc.	30	612,700	25,564	0.04
Stifel, Nicolaus & Co.	27	339,100	24,814	0.07
Witter (Dean) Reynolds Inc.	32	258,600	18,418	0.07
Sutro & Co., Inc.	192	302,400	18,189	0.06
Jefferies & Company, Inc.	31	289,400	17,884	0.06
Goodrich Securities	20	292,200	17,532	0.06
Bernstein (Sanford) & Co.	13	254,100	15,596	0.06
Montgomery Securities	18	332,700	15,445	0.05
Lawrence, C. J. Inc.	11	214,100	12,946	0.06
George K. Baum	20	183,188	12,347	0.07
Piper, Jaffray & Hopwood	13	169,455	10,857	0.06
Securities Settlement Corp.	19	144,500	10,500	0.07
Dillion, Reed & Co., Inc.	4	170,100	10,206	0.06
Lewco Securities	22	143,900	9,718	0.07
Tucker Anthony & R. L. Day	14	136,000	8,160	0.06
Brown (Alex.) & Sons	64	126,000	8,140	0.06
Morgan Stanley & Co., Inc.	27	152,708	6,936	0.05
Autranet, Inc.	11	106,900	6,414	0.06
Wagner, Stott & Co.	1	104,600	6,276	0.06
Oppenheimer & Co., Inc.	4	91,800	6,042	0.07
Legg Mason & Co.	18	97,800	5,868	0.06
Instinet	200	265,000	5,802	0.02
Cowen & Co.	36	117,955	5,664	0.05
Clearing Securities of America	5	90,600	5,436	0.06
Others	148	1,251,192	69,340	0.06
Total	4,383	31,659,363	\$ 1,889,371	\$ 0.06

See accompanying Independent Auditors' Report.

Missouri State Employees' Retirement System Schedule of Investment Service Fees

Year Ended June 30, 1990

	Fiduciary Fund Type Pension Trusts	Proprietary Fund Type Internal Service	Total (Memorandum Only)
Investment Advisors' Fees			
Fixed Income Managers	\$ 872,251	\$ 30,804	\$ 903,055
Equity Managers	3,480,403	0	3,480,403
Real Estate Managers	752,095	0	752,095
Venture Capital Managers	472,068	0	472,068
Total Investment Managers' Fees	5,576,817	30,804	5,607,621
Other Investment Service Fees			
Custodian Fees	728,482	0	728,482
Security Lending Fees	75,968	0	75,968
Investment Consultant	71,361	0	0
Total Investment Service Fees	\$ 6,452,628	\$ 30,804	\$ 6,412,071

See accompanying Independent Auditors' Report.

Actuarial Section



Photo Courtesy of the Missouri Department of Conservation

GABRIEL, ROEDER, SMITH & COMPANY

Actuaries & Consultants

200 Globe Building • 407 East Fort • Detroit, Michigan 48226 • 313-961-3346

Actuary's Certification Letter

October 19, 1990

The Board of Trustees
Missouri State Employees' Retirement System
Jefferson City, MO 65101

The primary financial objective of MOSERS has been to establish a contribution rate which, expressed as a percent of active member payroll, will remain approximately level from generation to generation of Missouri citizens.

In order to determine MOSERS' present reserve position and a level contribution rate for the future, annual actuarial valuations are made. The latest completed actuarial valuation was based upon data and assumptions as of June 30, 1990. Details of our work are shown in our annual valuation report.

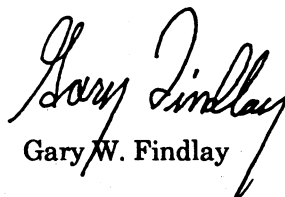
Assumptions concerning future financial experiences are needed for an actuarial valuation. These assumptions are established by the Board after consulting with the actuary. For the June 30, 1990, valuation the interest rate assumption was changed from 8% to 8.5% per annum. Other assumptions remained unchanged. When future investment return is assumed to be greater, both actuarial accrued liabilities and employer contributions will be computed to be smaller.

The level percent rate computed as of June 30, 1990, was 11.28% of payroll before consideration of the change in the interest rate assumption and 9.65% of payroll after the assumption change.

Level percent financing was interrupted by a state law enacted in 1988. For the four years beginning with fiscal year 1989 the employer contribution rate was set at 9.9% of payroll.

Results of the 1990 actuarial valuation indicated that actuarial accrued liabilities are approximately 85% covered by assets, a very strong reserve position.

Respectfully submitted,


Gary W. Findlay


Richard G. Roeder

Summary of Actuarial Assumptions

Economic Assumptions

1. The investment return rate used in the valuations was 8.5 percent per year, compounded annually (net after investment expenses). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time.
2. Pay increase assumptions for individual active members are shown for sample ages on page 49. Part of the assumption for each age is for merit and/or seniority increase, and the other 5.0 percent is for recognized wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.
3. The active member payroll is assumed to increase 5.0 percent annually, which is the portion of the individual pay increase assumptions attributable to inflation.
4. The number of active members is assumed to continue at the present number.
5. Assets were valued using a three-year moving average market value method.

Non-economic Assumptions

6. The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the Unisex Pension 1984 Mortality Table with no age adjustment for men and a six-year age setback for women. This assumption is used to measure probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.
7. The probabilities of age and service retirement are shown on page 48.
8. The probabilities of withdrawal from service, disability, and death-in-service are shown for sample ages on page 49. For disability retirement, impaired longevity was recognized by basing benefit values on an adjusted age midway between attained age and normal retirement age.
9. An entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are level percent of payroll contributions.
10. Employer contribution dollars were assumed to be paid in equal installments throughout the employer fiscal year.
11. The data about persons now covered and about present assets were furnished by the System's administrative staff. Although examined for general reasonableness, the data were not audited by the Actuary.
12. The actuarial valuation computations were made by or under the supervision of a member of the American Academy of Actuaries (MAAA).

Summary of Actuarial Assumptions

Percent of Eligible Active Members Retiring Next Year

MOSERS			ALJRS		
Retirement Ages	Percent		Retirement Ages	Percent	
	Men	Women		Men	Women
55	2 %	2 %			
56	2	2			
57	2	2			
58	2	3			
59	2	4			
60	5	8	60	5 %	8 %
61	10	15	61	10	15
62	20	25	62	20	25
63	20	15	63	20	15
64	25	25	64	25	25
65	45	55	65	45	55
66	35	35	66	35	35
67	30	25	67	30	25
68	30	25	68	30	25
69	45	60	69	45	60
70 & Over	100	100	70 & Over	100	100

Summary of Actuarial Assumptions

Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year						Pay Increase Assumptions For An Individual Employee		
		Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
		Men	Women	Men	Women	Men	Women			
	0	30.0%	28.0%							
	1	18.0	16.0							
	2	15.0	13.0							
	3	12.0	10.0							
	4	10.0	8.0							
20	5+	10.0	8.0	.05%	.01%	.00%	.00%	3.0%	5.0%	8.0%
25		9.0	7.5	.07	.02	.01	.02	2.9	5.0	7.9
30		5.5	5.5	.09	.03	.02	.02	2.5	5.0	7.5
35		3.5	3.5	.19	.04	.04	.05	2.2	5.0	7.2
40		2.0	1.5	.25	.09	.07	.08	1.7	5.0	6.7
45		1.2	1.2	.36	.17	.13	.13	1.5	5.0	6.5
50		1.1	1.0	.70	.27	.25	.33	1.0	5.0	6.0
55		1.0	0.8	.79	.33	.58	.54	1.0	5.0	6.0
60		1.0	0.8	1.34	.54	.95	.65	1.0	5.0	6.0
65		1.0	0.5	1.88	.71	—	—	1.0	5.0	6.0

Pension Trust Funds

Summary of Member Data Included in Valuations

June 30, 1990

Active Members

Valuation Group	Number	Payroll	Group Averages		
			Salary	Age (yrs.)	Service (yrs.)
MOSERS					
Regular State Employees	41,201	\$ 830,717,776	\$ 20,163	41.0	8.9
Elected Officials	6	436,985	72,831	47.7	8.1
Legislative Clerks	45	615,641	13,681	37.2	4.6
Legislators	194	4,360,822	22,478	51.0	9.6
Uniformed Water Patrol	70	1,776,141	25,373	35.3	9.2
Conservation	1,253	31,666,452	25,273	39.5	11.8
Contract Employees	4,065	124,654,677	30,665	44.0	9.6
Totals	46,834	\$ 994,228,494	\$ 21,229	41.3	9.0
ALJRS	34	\$ 1,912,986	\$ 56,264	50.6	9.3
NON-FUNDED JUDGES	349	\$ 24,463,766	\$ 70,097	52.1	10.8

Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age (yrs.)
MOSERS				
Retirement	10,425	\$ 53,963,160	\$ 5,176	72.5
Disability	275	909,108	3,306	58.0
Survivor of Active Member	450	1,219,464	2,710	61.8
Survivor of Retired Member	345	1,208,592	3,503	71.3
Totals	11,495	\$ 57,300,324	\$ 4,985	71.7
ALJRS	9	\$ 225,144	\$ 25,016	68.6
NON-FUNDED JUDGES	277	\$ 6,125,424	\$ 22,113	74.7

MOSERS

Active Members by Attained Age and Service

June 30, 1990

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Payroll
Under 20	62							62	\$ 689,216
20-24	1,992	66						2,058	29,829,144
25-29	4,194	1,234	96					5,524	96,719,619
30-34	3,564	1,901	1,258	105				6,828	131,950,630
35-39	3,085	1,684	1,781	1,028	75			7,653	163,675,435
40-44	2,556	1,458	1,482	1,463	657	41		7,657	171,023,148
45-49	1,661	990	987	859	767	222	16	5,502	128,628,480
50-54	1,161	785	778	662	664	359	152	4,561	108,111,875
55-59	767	599	626	578	540	385	239	3,734	87,963,318
60	94	85	104	114	102	57	56	612	14,356,765
61	94	71	104	97	93	58	61	578	13,433,981
62	82	77	113	81	73	42	40	508	11,645,492
63	57	69	90	67	56	21	25	385	8,737,271
64	46	62	65	53	44	23	33	326	7,451,112
65	31	33	57	47	42	31	12	253	6,120,781
66	27	29	17	27	30	14	12	156	3,937,022
67	25	21	28	19	20	9	5	127	3,094,795
68	9	11	20	20	14	10	4	88	2,085,807
69	6	10	12	7	10	4	4	53	1,161,081
70 & Over	26	22	47	24	21	15	14	169	3,613,522
Totals	19,539	9,207	7,665	5,251	3,208	1,291	673	46,834	\$ 994,228,494

Averages:

Age 41.3 years
 Service 9.0 years
 Annual Pay \$21,229

ALJRS
Active Members by Attained Age and Service
 June 30, 1990

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	2							2	\$ 92,069
35-39	5	2						7	393,895
40-44	5		1					6	346,593
45-49			1	2				3	159,045
50-54	1	1	1					3	153,172
55-59	1			1				2	114,388
62	1				1			2	124,773
63			1					1	56,802
64		1	1		1			3	185,102
65					1			1	60,329
66	1							1	56,802
70 & Over				1	1	1		3	170,016
Totals	16	4	5	4	4	1		34	\$ 1,912,986

Averages:

Age 50.6 years
 Service 9.3 years
 Annual Pay \$56,264

MOSERS Retirees and Beneficiaries Added and Removed

Ten Years Ended June 30, 1990

	Beginning Balance	Additions	Ending Deletions	Balance
FY 90				
Retirees	10,374	866	540	10,700
Beneficiaries	720	102	27	795
FY 89				
Retirees	9,961	966	553	10,374
Beneficiaries	651	105	36	720
FY 88				
Retirees	9,514	1,322	875	9,961
Beneficiaries	576	96	21	651
FY 87				
Retirees	9,133	749	368	9,514
Beneficiaries	520	81	25	576
FY 86				
Retirees	8,777	765	409	9,133
Beneficiaries	477	60	17	520
FY 85				
Retirees	8,463	692	378	8,777
Beneficiaries	435	51	9	477
FY 84				
Retirees	8,091	711	339	8,463
Beneficiaries	394	57	16	435
FY 83				
Retirees	7,688	761	358	8,091
Beneficiaries	353	50	9	394
FY 82				
Retirees	7,198	813	323	7,688
Beneficiaries	312	55	14	353

Information prior to fiscal year 1982 is not available.

ALJRS Retirees and Beneficiaries Added and Removed

Ten Years Ended June 30, 1990

	Beginning Balance	Ending Additions	Deletions	Balance
FY 90				
Retirees	7	2	0	9
Beneficiaries	0	0	0	0
FY 89				
Retirees	6	1	0	7
Beneficiaries	0	0	0	0
FY 88				
Retirees	3	3	0	6
Beneficiaries	0	0	0	0
FY 87				
Retirees	1	2	0	3
Beneficiaries	0	0	0	0
FY 86				
Retirees	0	1	0	1
Beneficiaries	0	0	0	0

Plan established in fiscal year 1985.

Judicial Retirees and Beneficiaries Added and Removed

Ten Years Ended June 30, 1990

	Beginning Balance	Ending Additions	Deletions	Balance
FY 90				
Retirees	155	14	5	164
Beneficiaries	108	6	3	111
FY 89				
Retirees	153	16	14	155
Beneficiaries	97	13	2	108
FY 88				
Retirees	143	23	13	153
Beneficiaries	88	11	2	97

Information prior to fiscal year 1982 is not available.

Summary of Accrued and Unfunded Accrued Liabilities

Last Four Fiscal Years Ending June 30, 1990

MOSERS

Year Ended June 30	(1) Actuarial Accrued Liabilities	(2) Valuation Assets	(3) Unfunded Actuarial Accrued Liabilities (1) - (2)	(4) Valuation Payroll	(5) Assets as % of Liabilities (2) / (1)	(6) Unfunded Liabilities as % of Payroll (3) / (4)
1990	\$ 1,861,365,216	\$ 1,587,114,827	\$ 274,250,389	\$ 994,228,494	85.3%	27.6%
1989	1,782,125,565	1,417,715,534	364,410,031	895,170,355	79.6%	40.7%
1988	1,569,242,030	1,255,558,874	313,683,156	824,486,280	80.0%	38.0%
1987	1,208,155,321	1,029,734,188	178,421,133	692,363,414	85.2%	25.8%

ALJRS

Year Ended June 30	(1) Actuarial Accrued Liabilities	(2) Valuation Assets	(3) Unfunded Actuarial Accrued Liabilities (1) - (2)	(4) Valuation Payroll	(5) Assets as % of Liabilities (2) / (1)	(6) Unfunded Liabilities as % of Payroll (3) / (4)
1990	\$ 6,333,743	\$ 4,093,598	\$ 2,240,145	\$ 1,912,986	64.6%	117.1%
1989	6,450,259	3,348,429	3,101,830	1,869,790	51.9%	165.9%
1988	5,383,168	2,723,051	2,660,117	1,407,692	50.6%	189.0%
1987	4,186,361	2,243,078	1,943,283	1,418,040	53.6%	137.0%

Short-Term Solvency Test

MOSERS

Fiscal Year	Actuarial Accrued Liabilities for			Net Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Net Assets Available		
	Member Contributions	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion		(1)	(2)	(3)
	(1)	(2)	(3)				
1990	\$ 482,785	\$ 520,837,298	\$ 1,340,045,133	\$ 1,587,114,827	100.0%	100.0%	79.5%
1989	492,278	492,128,269	1,289,505,018	1,417,715,534	100.0%	100.0%	71.7%
1988	496,248	370,132,734	1,198,613,048	1,255,558,874	100.0%	100.0%	73.8%
1987	498,712	332,745,597	874,911,012	1,029,734,188	100.0%	100.0%	79.6%

ALJRS

Fiscal Year	Actuarial Accrued Liabilities for			Net Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Net Assets Available		
	Member Contributions	Current Retirees and Beneficiaries	Active and Inactive Members, Employer Financed Portion		(1)	(2)	(3)
	(1)	(2)	(3)				
1990	\$ 0	\$ 2,479,268	\$ 3,789,264	\$ 4,093,598	100.0%	100.0%	42.6%
1989	0	2,109,119	4,341,140	3,348,429	100.0%	100.0%	28.5%
1988	0	1,752,412	3,630,756	2,723,051	100.0%	100.0%	26.7%
1987	0	772,549	3,413,812	2,243,078	100.0%	100.0%	43.1%

Missouri State Employees' Retirement System
Total Benefits Payable June 30, 1990
Tabulated by Attained Ages of Benefit Recipients

Attained Ages	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20		\$		\$	9	\$ 15,288	9	\$ 15,288
20-24					2	6,144	2	6,144
25-29					2	4,428	2	4,428
30-34			1	1,104	6	26,964	7	28,068
35-39			4	7,488	8	38,688	12	46,176
40-44			12	25,764	19	79,332	31	105,096
45-49			20	54,180	28	113,460	48	167,640
50-54			33	103,704	42	131,988	75	235,692
55-59	286	1,874,076	65	218,592	100	352,332	451	2,445,000
60-64	1,231	8,302,584	134	477,732	115	358,164	1,480	9,138,480
65-69	2,840	15,552,408	6	20,544	147	475,524	2,993	16,048,476
70-74	2,470	12,434,964			135	375,576	2,605	12,810,540
75-79	1,847	8,461,848			95	243,864	1,942	8,705,712
80-84	1,116	4,668,588			61	163,740	1,177	4,832,328
85-89	437	1,953,120			25	41,772	462	1,994,892
90-94	143	532,452			1	79	144	533,244
95	17	66,396					17	66,396
96	14	44,508					14	44,508
97	11	31,884					11	31,884
98	4	10,320					4	10,320
99	4	10,512					4	10,512
101	1	1,116					1	1,116
102	2	11,748					2	11,748
103	1	3,108					1	3,108
104	1	3,528					1	3,528
Totals	10,425	\$ 53,963,160	275	\$ 909,108	795	\$ 2,428,056	11,495	\$ 57,300,324

MOSERS
Actuarial Present Values
 June 30, 1990

Actuarial Present Value, June 30	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active Members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$ 1,826,240,030	\$ 703,275,812	\$ 1,122,964,218
Disability benefits likely to be paid to present active members who become totally and permanently disabled	56,759,003	28,951,723	27,807,280
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	119,206,069	63,334,356	55,871,713
Separation benefits likely to be paid to present active members			
–Refunds of member contributions	482,785		
–Deferred benefits	186,688,841		
Total	187,171,626	106,017,534	81,154,092
Active Member Totals	\$ 2,189,376,728	\$ 901,579,425	1,287,797,303
Members on Leave of Absence and LTD			
Service retirement benefits based on service rendered before the valuation date			14,562,342
Terminated Vested Members			
Service retirement benefits based on service rendered before the valuation date			38,168,273
Retired Lives			520,837,298
Total Actuarial Accrued Liability			1,861,365,216
Assets Used in Valuation			1,587,114,827
Unfunded Actuarial Accrued Liability			\$ 274,250,389

ALJRS
Actuarial Present Values
 June 30, 1990

Actuarial Present Value, June 30	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active Members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$ 5,841,849	\$ 2,249,624	\$ 3,592,225
Disability benefits likely to be paid to present active members who become totally and permanently disabled	110,729	86,432	24,297
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	365,472	245,014	120,458
Separation benefits likely to be paid to present active members	282,560	230,276	52,284
Active Member Totals	\$ 6,600,610	\$ 2,811,346	3,789,264
Members on Leave of Absence and LTD			
Service retirement benefits based on service rendered before the valuation date			0
Terminated Vested Members			
Service retirement benefits based on service rendered before the valuation date			65,211
Retired Lives			<u>2,479,268</u>
Total Actuarial Accrued Liability			<u>6,333,743</u>
Assets Used in Valuation			<u>4,093,598</u>
Unfunded Actuarial Accrued Liability			<u><u>\$ 2,240,145</u></u>



Photo Courtesy of the Missouri Department of Conservation

Statistical Section



Photos Courtesy of the Missouri Department of Conservation

Benefit Expenses by Type Last Ten Fiscal Years

Ending June 30, 1990

	<u>FY 90</u>	<u>FY 89</u>	<u>FY 88</u>	<u>FY 87</u>	<u>FY 86</u>
Retirement	\$ 50,622,879	\$ 44,961,595	\$ 30,597,097	\$ 20,206,526	\$ 17,555,999
Survivor	2,178,282	1,653,244	1,365,209	1,097,245	921,403
Disability	996,712	1,210,440	1,767,075	1,333,313	1,334,181
Nonfunded	0	0	4,703,479	11,160,433	7,706,443
Judges	5,838,700	5,142,127	4,380,973	3,572,635	2,969,364
Legislators	922,435	714,248	617,267	505,894	340,393
Admin. Law Judges	191,534	163,327	104,757	52,983	11,412

	<u>FY 85</u>	<u>FY 84</u>	<u>FY 83</u>	<u>FY 82</u>	<u>FY 81</u>
Retirement	\$ 15,271,986	\$ 13,416,391	\$ 11,488,165	\$ 9,589,627	\$ 8,066,358
Survivor	770,414	659,585	539,286	446,890	382,830
Disability	1,196,489	1,054,161	961,969	853,553	701,130
Nonfunded	6,852,613	5,632,780	5,267,274	4,877,446	4,953,102
Judges	2,728,581	2,507,052	2,343,787	2,170,611	2,014,547
Legislators	264,663	180,859	135,035	100,458	79,028
Admin. Law Judges	0	0	0	0	0

**Missouri State Employees' Retirement System
Benefits Payable June 30, 1990
Tabulated by Option and Type of Benefit**

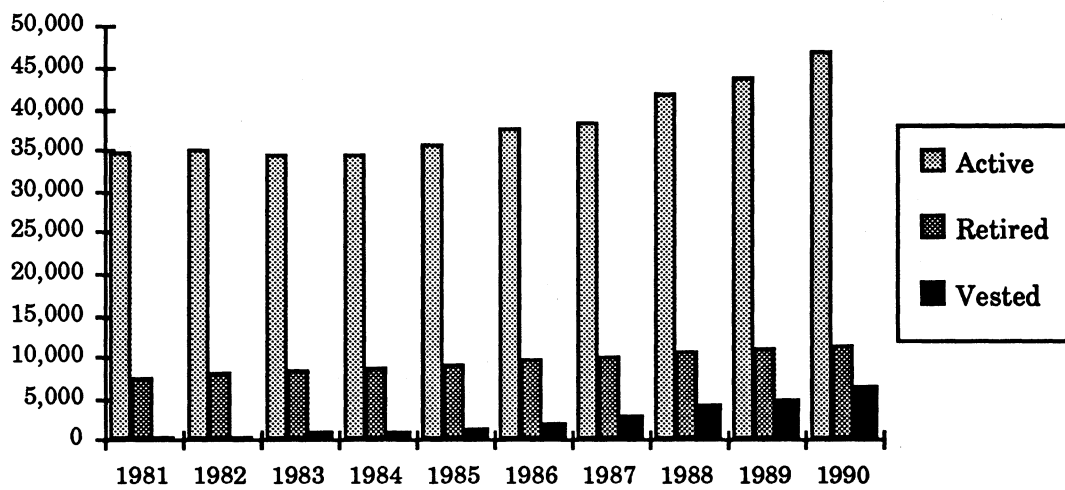
Type of Benefit	Number	Annual Funded Benefits	Average Annual Benefit
Service Retirement			
Normal Annuity	8,945	\$ 42,884,484	\$ 4,794
50% Joint and Survivor	429	4,348,632	10,137
75% Joint and Survivor	29	198,528	6,846
100% Joint and Survivor	882	5,739,624	6,508
5 Year Certain and Life	65	391,536	6,024
10 Year Certain and Life	75	400,356	5,338
Survivor Beneficiary	345	1,208,592	3,503
Total	10,770	55,171,752	5,123
Disability Retirement	275	909,108	3,306
Death-in-Service	450	1,219,464	2,710
Grand Totals	11,495	\$ 57,300,324	\$ 4,985

Average Monthly Benefit Amounts

Five Years Ending June 30, 1990

	FY 90	FY 89	FY 88	FY 87	FY 86
REGULAR					
Member	426	384	331	314	263
Survivor	251	205	194	181	167
Disability	275	265	238	205	168
JUDGES					
Member	2,575	2,275	2,107	1,845	1,495
Survivor	781	722	690	643	611
Disability	2,710	2,557	2,549	—	2,812
LEGISLATORS					
Member	964	878	850	883	643
Survivor	439	319	299	234	248
ADMIN. LAW JUDGES					
Member	2,085	2,094	2,049	1,867	2,295

**Missouri State Employees' Retirement System
Retirement Plan Membership
Last Ten Fiscal Years**



Fiscal Year	Active	Retired	Vested
1981	34,762	7,409	517
1982	35,089	8,064	600
1983	34,468	8,436	994
1984	34,505	8,898	1,056
1985	35,575	9,254	1,442
1986	37,552	9,653	2,131
1987	38,174	10,090	3,200
1988	41,944	10,612	4,356
1989	43,787	11,090	4,997
1990	46,834	11,495	6,544

Investment Returns and Asset Allocations

MOSERS' ability to meet its future obligations will be determined by the level of State funding provided and the success of the difficult process of properly allocating assets to good managers in diversified asset classes. MOSERS' investment objective is to provide an optimal and stable return on its investments so as to provide enough assets to meet these obligations to State employees without further encumbering the State's taxpayers.

The graph on page 66 depicts the growth of the assets and accrued liabilities of the MOSERS and ALJRS plans. As one can see, the plans have made considerable progress toward funding accrued liabilities since 1984. However, the challenge of closing the gap remains. The investment returns experienced in the late 1980's were extraordinary, and the plans benefited greatly from a bold decision in 1982 to increase the fund's equity holdings. To provide an historical perspective, MOSERS' actuaries have provided the information below, which highlights the benefits of holding equities in the late 1980's.

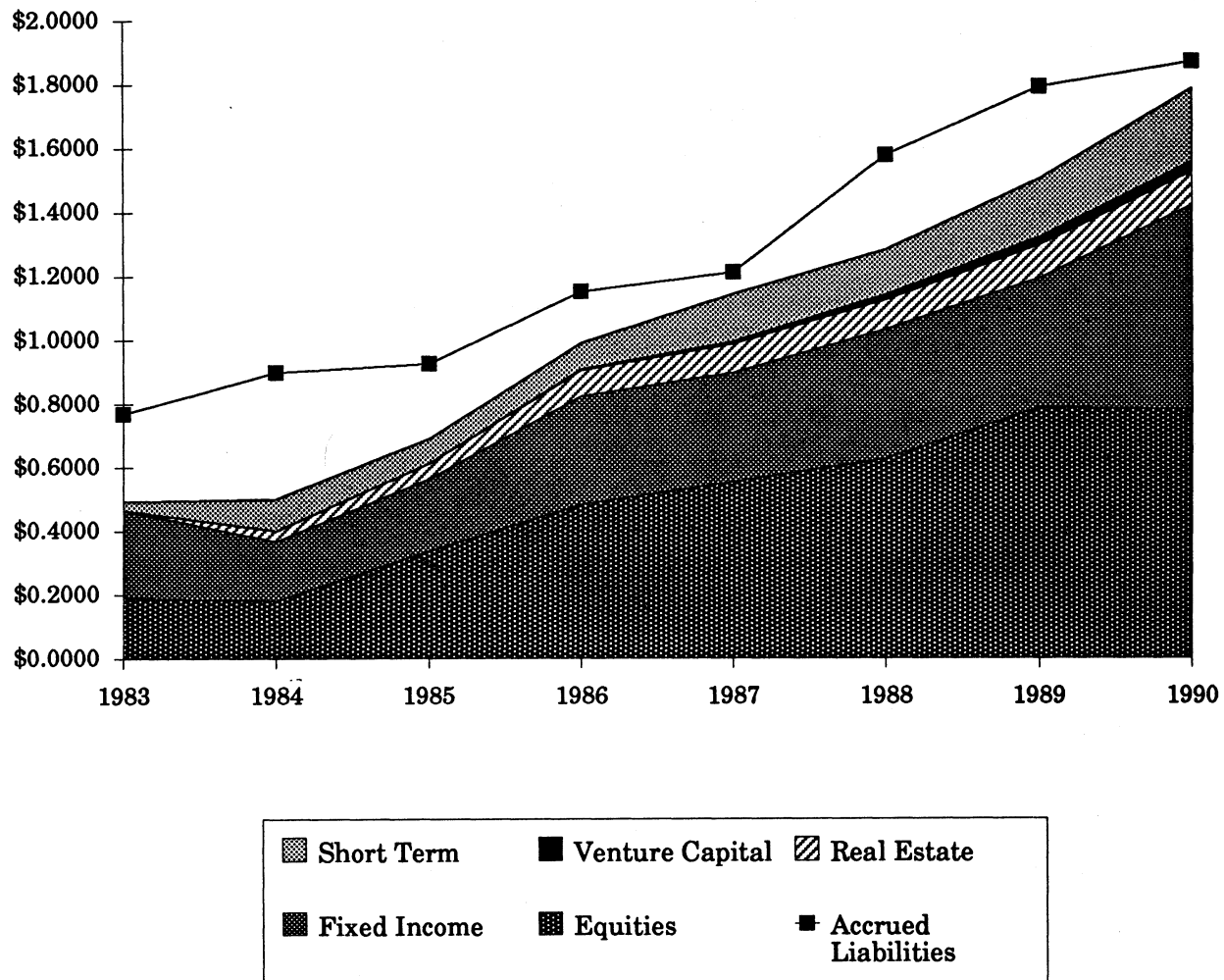
# Years/ Ended December	Inflation (CPI)	Total Returns, Net of Inflation			Pro-Forma Returns	
		Salomon LT Bond Index	T-Bill Index	S&P 500 Stock Index	Sample 1 Asset Mix 45/10/45	Sample 2 Asset Mix 30/10/60
5/1964	1.2	4.4	1.6	9.4	6.7	7.4
5/1969	3.8	-5.7	1.1	1.2	-1.8	-0.8
5/1974	6.6	0.1	-0.7	-8.3	-3.6	-4.8
5/1979	8.1	-2.1	-1.3	6.2	1.9	3.1
5/1984	6.5	4.3	4.2	7.8	6.3	6.8
5/1989	3.7	10.9	3.0	16.1	12.5	13.3
1/1985	3.8	26.1	3.8	27.4	24.4	24.6
1/1986	1.1	18.6	5.0	17.2	16.6	16.4
1/1987	4.4	-4.4	1.1	0.8	-1.5	-0.8
1/1988	4.4	6.0	1.9	11.9	8.2	9.1
1/1989	4.7	11.0	3.5	25.6	16.8	19.0
25/1989	5.7	1.3	1.3	4.3	2.9	3.3

The two sample funds are hypothetical funds constructed by combining the returns of the three indexes show, first with the S&P 500 at 45% of the portfolio, then at 60% of the portfolio with T-Bills held constant at 10%. Index returns, including income, are averaged over the periods given.

The table also shows other periods when long-term bonds and/or cash were better investments. On page 67, the returns on our various asset classes over the last one, two, three, and eight year time periods are displayed. While the heavy weighting toward equities greatly enhanced the funds' total return, they also benefited from the exceptional performance of the long-term bond portfolio. These figures show some of the variability of returns from each asset class from year to year, which is why MOSERS utilizes different classes as well as different investment management advisers within each class. The diversification of the pension assets, as of June 30, 1990, is depicted on page 68.

Missouri State Employees' Retirement System Combined Assets vs. Liabilities

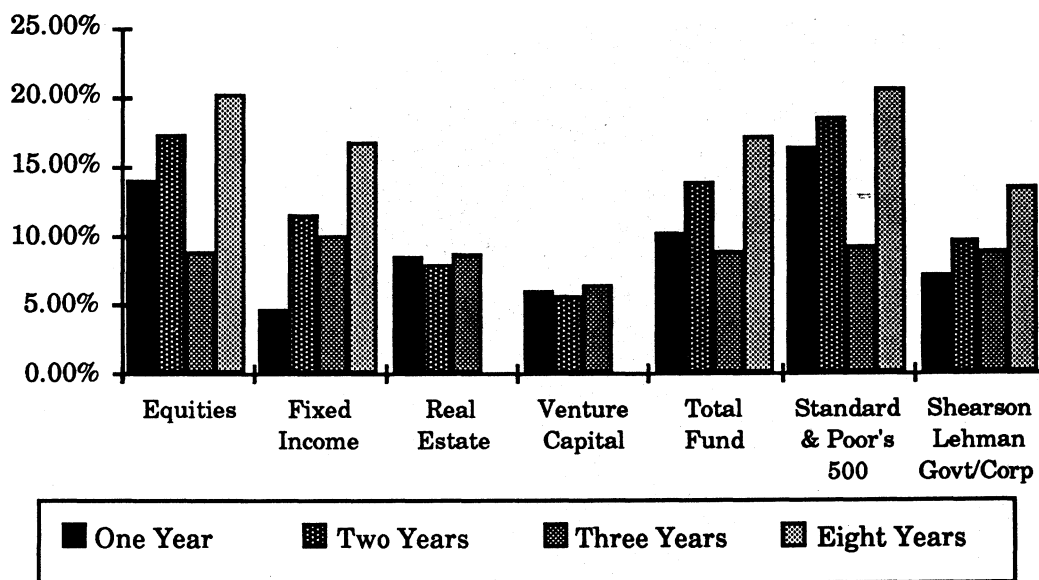
June 30, 1990



The explosive growth of MOSERS' assets from approximately \$475 million in 1983 to \$1.78 billion in 1990 has been accompanied by a corresponding increase in actuarial accrued liabilities to approximately \$1.87 billion as of June 30, 1990. As noted on the graph, it was primarily the growth in the equity portion of the portfolio which allowed the fund to continue to improve the funded position.

Missouri State Employees' Retirement System Pension Funds Investment Performance

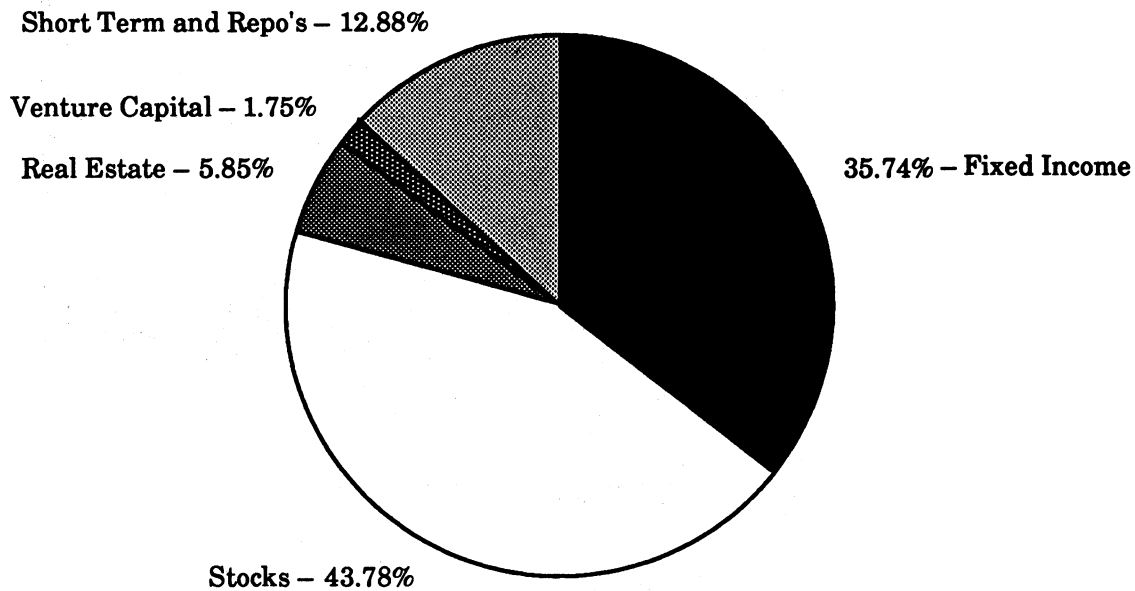
Periods Ended June 30, 1990



	<u>One Year</u>	<u>Two Years</u>	<u>Three Years</u>	<u>Eight Years</u>
Equities	14.10%	17.34%	8.79%	20.18%
Fixed Income	4.64%	11.51%	10.03%	16.77%
Real Estate	8.43%	7.90%	8.67%	
Venture Capital	5.93%	5.71%	6.35%	
Total Fund	10.16%	13.89%	8.95%	17.10%
Standard & Poor's 500	16.41%	18.45%	9.29%	20.55%
Shearson Lehman Govt/Corp	7.11%	9.70%	8.95%	13.55%

Missouri State Employees' Retirement System Pension Funds Investment Diversification

June 30, 1990



	Market Values Millions
Fixed Income	637.766
Stocks	781.108
Real Estate	104.360
Venture Capital	31.161
Short Term and Repo's	229.130

Given the unusual expansion in equity values, the Board of Trustees decided in the Fall of 1989 to reduce MOSERS' equity exposure and increase its holdings of intermediate and shorter term bonds. During the year, Wentworth, Hauser & Violich of San Francisco was dismissed as a fixed income advisor and two Missouri-based fixed income managers were added.

Missouri State Employees' Retirement System
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